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BIRDS ON TREE
TURNER ON BIRDS:
A SHORT AND SUCCINCT HISTORY
OF THE
PRINCIPAL BIRDS NOTICED BY PLINY AND ARISTOTLE,

FIRST PUBLISHED BY
Doctor WILLIAM TURNER,
1544.

EDITED,
WITH INTRODUCTION, TRANSLATION, NOTES, AND APPENDIX,

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PREFACE.

IN translating this treatise it has been thought advisable to adhere as closely as possible to the original text of Turner, though in many places a more modern style of phraseology would doubtless have better pleased the ear of the non-scientific reader.

Not a few difficult points of interpretation have arisen in the course of the work, and the Editor welcomes this opportunity of expressing his gratitude to Professor Newton and to Mr R. D. Archer-Hind of Trinity College for the invaluable help that he has received from them in elucidating the hard passages and in revising the proofs. The Editor's thanks are also due to the Syndics of the University Press for undertaking the present publication.

9, HARVEY ROAD,
CAMBRIDGE.

July, 1903.
NOTE.

It may be remarked that the pages of Turner's work are not numbered in the original; but, for convenience of reference, the pagination is marked in the margin—the numbers being included in square brackets.
INTRODUCTION.

William Turner, author of the rare treatise here republished, was a native of Morpeth in Northumberland and is supposed to have been the son of a tanner of that town. By the aid of Thomas, the first Lord Wentworth, he was enabled to enter Pembroke Hall in the University of Cambridge, where he graduated B.A. and was elected a fellow of his College in 1530. At Pembroke he became acquainted with Ridley (who instructed him in Greek) and Latimer, two of the most earnest advocates of the Reformed doctrines, which he himself, both then and afterwards, strenuously embraced; but there is no need to dwell upon his theological views or the polemical works in which they were set forth.

While at Cambridge Turner was a zealous student of botany, and in 1538 published a Libellus de re herbaria. About two years later he left this University for Oxford, and soon after suffered imprisonment for preaching without a licence. On his release he quitted England, and travelled by way of the Netherlands and Germany to Italy, attending the botanical lectures of Luca Ghini at Bologna, where, or at Ferrara, he took the degree of M.D.

Thereafter he proceeded to Switzerland, forming a close friendship with the great naturalist Conrad Gesner of Zurich, Professor of Medicine and Philosophy in the School of that city, who held him in high esteem, and with whom he afterwards kept up a correspondence. He seems to have been at Basel in 1543, but early in 1544 he was at Cullen (Cologne), where he published not only the present work—dedicated
to Edward Prince of Wales (afterwards King Edward the Sixth)—but also edited the *Dialogus de Avibus* of his friend Gybertus Longolius of Utrecht, who died the preceding year. He pursued his botanical studies in several parts of Germany, as well as in the Netherlands, including East Friesland, for he became physician to the Count of Emden, and visited the islands of Juist and Norderney lying off the coast of that province.

On the death of King Henry the Eighth he returned to England, becoming chaplain and physician to Lord Protector the Duke of Somerset; but he lived at Kew, where he established a botanic garden. He was, moreover, incorporated M.D. of Oxford, and was appointed a prebendary of York. In 1550 the Privy Council sent letters for his election as Provost of Oriel College in Oxford, but the post had been already filled, and a similar disappointment awaited him in regard to the Presidency of Magdalen College in the same University. He then applied to Sir William Cecil for leave to return to Germany, but was soon after consoled by being appointed Dean of Wells, and, having in 1551 published the first part of his *New Herbal*, was during the next year ordained priest by his old friend Ridley, then Bishop of London.

On the accession of Queen Mary Turner had to vacate his deanery, and betook himself for safety once more to the Continent, visiting Rome and several places in Germany and Switzerland. When Queen Elizabeth ascended the throne he returned to England, and recovered his deanery, to which was attached the rectory of Wedmore in Somersetshire; but in 1564 he was suspended for nonconformity and seems to have come to live in London. In 1557 he had addressed a letter on English Fishes to Gesner, which was included in that naturalist's *Historia Animalium*; and in 1562 he published the second part of his *Herbal*, which he dedicated to Lord Wentworth, the son of his original benefactor. On the 7th of July 1568 Turner died at his house in Crutched Friars in the City of London, and was buried in the church of St Olave, Hart Street.
Turner married Jane, daughter of George Ander, Alderman of Cambridge, by whom he had issue Winifred, Peter and Elizabeth.

It must be understood that, his scientific work apart, nearly the whole of Turner's life was spent in religious controversy, and he published a considerable number of polemical works, the titles of which may be seen in the bibliography appended to the excellent ‘Life’ prefixed to Mr Jackson's facsimile reprint of the *Libellus de re herbaria*¹, whence all the particulars above given are taken. Other lists of Turner's works may be found in Cooper’s *Athenae Cantabrigienses* (I. pp. 257–259) and the *Dictionary of National Biography* (LVII. pp. 365, 366).

Turner’s object in writing the present treatise is fully set forth in his ‘Epistola Nuncupatoria’ prefixed to it. While attempting to determine the principal kinds of birds named by Aristotle and Pliny, he has added notes from his own experience on some species which had come under his observation, and in so doing he has produced the first book on Birds which treats them in anything like a modern scientific spirit and not from the medical point of view adopted by nearly all his predecessors; nor is it too much to say that almost every page bears witness to a personal knowledge of the subject, which would be distinctly creditable even to a modern ornithologist.

This knowledge is especially evident in his account of the habits of the Hobby (p. 19), Hen-Harrier (p. 19), Water-Ousel (p. 23), Moor-Buzzard (p. 33), Osprey (p. 37), Godwit (p. 45), Wheatear (p. 53), Sandpiper (p. 57), Fieldfare (p. 59), Cuckoo (p. 69), Black-headed Gull (p. 77), Black Tern (p. 79), Swallows (p. 101), Cormorant (p. 111), Shrike (p. 119), Redbreast and Redstart (p. 157); while his keen eye for distinctions is shown in his descriptions of the Black Cock and Grey Hen (p. 43), Godwit (p. 45), Tree-Creeper (p. 53).

Doves (p. 59), Lapwing (p. 77), Nutcracker (p. 95), Reed-Bunting (p. 103), Kites (p. 117), Bullfinch (p. 161) and others. He is most careful to tell us whether he observed the various species in England or abroad and their comparative abundance, and to note the breeding of the rarer species, such as the Spoonbill (p. 151), and Crane (p. 97) within our islands—that of the Crane being of special interest; the whole account of the Cuckoo (p. 69) is also most noticeable, as is that of the curious Walt-rapp (p. 95) of which Gesner writes as follows:

GESNER De Corvo Sylvatico¹ (p. 337).

AUIS, cuius hic effigies habetur, à nostris nominatur uulgo ein Waldrapp; id est coruus sylvaticus...Sunt qui phalacrocoracem hanc auem interpretentur, quoniam & magnitudine & colore ferè coruum refert: & caluescit, ut uidi, cum adultior est. Turnerus Aristotelis coruum aquaticum & Plinij phalacrocoracem, & coruum syluaticum nostrum auem unam esse arbitratur, tertium genus graculi. Coruus syluaticus Helvetiorum, inquit, auis est corpore longo et ciconia paulò minore, cruribus breuibus, sed crassis: rostro rutilo, parum adunco (curuo) & sex pollices longo: alba in capite macula, & ea nuda, si bene memini....Sic ille.

Doubtless Turner's work is not free from errors, as in the case of the very old story of the breeding of the Bernicle-Goose (which, however, he was most loth to credit even when assured of its truth by an Irish Divine), in his confounding of the Onocrotalus with the Ardea stellaris and the Cornish with the Alpine Chough; yet these are but small blots on a very excellent treatise, which compares most favourably with other writings of his time.

It is quite evident from various passages that Turner was acquainted with Aristotle's works in the original Greek, and especially with his History of Animals; but he preferred quoting that author from the Latin translation of Theodorus

¹ Conradi Gesneri Tigurini medici & Philosophiae professoris in Schola Tigurina Historiae Animalium Liber III. qui est de Auium natura. Tiguri apud Christoph. Froschovervm, Anno M.D.LV.
Gaza of Thessalonica, the most celebrated Scholar of his day, who, fleeing from the sack of Constantinople, played a conspicuous part in the rise of the "New Learning," and after a course of teaching in Rome, entered successively the service of the Popes Nicholas the Fifth and Sixtus the Fourth, eventually dying in poverty in Lucania about 1484.

Exact transcription of a text was considered by no means necessary in those days: consequently we find many observations and explanations inserted in the text of Aristotle and Pliny, which had no place in the original.1

Besides referring to Gesner, Turner mentions other learned men by name and occasionally quotes from their works; while his pages also inform us of many places that he visited.

The following excerpts from Gesner not only give instances of correspondence between him and Turner, but also shew that the former was accustomed to correct the latter from his wider knowledge of Ornithology.

De Branta vel Bernicla... (p. 107).

Idē [Turnerus] post librum suum de avibus publicatum, in epistola ad me data, Berniclas siue Brantas (inquit) ex putridis nauis malis fungorum more nasci, minimē fabulosum esse doctorum & honestorum uiorum oculata fides mihi persuasit. Branta anserem palustrem ualde refert: his tamen notis ab eo differt. Branta breuior est, à collo quod rubescit nonnihil, ad medium usq. uentrem, qui candicat, nigra est. anserum more segetes populatur. In Vuallia (quae pars est Angliæ) in Hibernia & Scotia aues istæ adhuc rudes & implumes in littore, sed non sine forma certa & propria auis passim inueniuntur. Et rursus, Præter brantam aut berniclam est alia auis, quæ originem suam arbori refert acceptam. Arbores sunt in Scotia ad littus maris crescentes, è quibus prodeunt ueluti fungi parui, primum informes, postea paulatim integram auis formam acquirunt, perfectæ tandem magnitudinis illæ, rostro aliquantisper pendent, paulo post in aquam decidunt, & tum demum uiuunt. Hoc tot tantæq. integritatis uiri affirmauerunt ut credere audeam, & aliis credere suadeā. Hæc ille. Eliota Anglus &c...
De Vulpansere (p. 156).

Chenalopex (inquit Turnerus Anglus) ab ansere & uulpe nomen habet...
Et rursus in epistola ad me, Vulpanserem Angli vocât a Bergander, nidulatur in cuniculorî fouëis more uulpium, anate maior, minor ansere, alis ruffis. Eliota Anglus...

De Pygargo (p. 199).

Pygargum (inquit Turnerus) literatores quidam ineptè trappum à Germanis dictum (tardam, uel bistardam) interpretatur. Sed pygargus Anglorum lingua, nisi fallar, erna vocatur, an erne. Ego ernam audio dici genus aquile quod apud Frisios ad Oceanum Germanicum per hyemem degat, colore nigro, quod cornices quædam ut ex escarum eius reliquis uiictitent sequantar. Pygargus est forte quam Anglicè dicimus ringetayle, Eliota. Sed Turnerus ringtalum Anglis dictum ab albo circulo caudam circumeunte, buteone mi-norem, subbuteonem Aristotelis esse suspicatur. Quod si minor est buteone, non poterit esse pygargus.

De Caprimulgo (p. 235).

[Having quoted Turner] Idem postea in litteris ad me missis, caprimulgum se uidisse scribit prope Bonnam (Germaniae ciuitatem ad ripam Rheni, supra Coloniam) ubi à uulgo appellatur Naghtrauen, id est coruus nocturnus. Nos auis illius quæ Argêtîne vocatur Nachtram, corrupto forsan nomine, alibi Nachtrap, effigiem intrà ponemus cum historia nycticoracis.

De Carduele (p. 235).

...Auis Aristoteli thrâupis, ὑπαυτίς, dicta à Gaza carduelis convirtitur: quod & Hermolao probatur. Turnero quidem non assenserim, qui chloridem nostram (Grünling uulgò vocant) thrâupin esse conijcit.

De Rala terrestri (pp. 481—482).

...Perdix rustica vel rusticula Plinij (inquit Turnerus in epistola ad me) ab Anglis vocatur rala. Est autem rala duplex, altera cibum è ripis fluminum petit, altera degit in ericeto in locis sylvestribus. Aquaticam illam Coloniae diu alui, & male uolare deprehendi, & egregiè pugnacem. Ro-strum & crura erât rubra, plumê multis maculis respersë.
Montana verò illa & syluestris crura habet multò breuiora aquatili, & plumas undiq, magis cinereas, sed rubra interim crura habet & rostrum. auis utraq, apud nos regium epulum (real Itali regium vocant, Galli royal, & forte hinc ductum est ralæ vocabuli. à colore crurum forte erythropus fuerit) vocatur. Hæc ille.

De Cincl o (p. 592).

Turnerus cinclum auem Anglicè interpretatur a water swallow, (quasi dicas hirundinem aquaticam,) Germanicè ein Steinbeisser, (sed nostri aliam auè, cocochoastruen nostrum, Steinbeisser appellant.) Auicula (inquit) quam ego cinclum esse puto, galerita paulo maior est, colore in tergo nigro, uentre albo, tibiis longis, & rostro neutiquam breui. Vêre circa ripas fluminum ualde clamosa est & querula, breues & crebros facit ulolatus. * Huic Turneri descriptioni cognata uideri potest merula aquatica nostra: magis uerò illa, quam circa Argentoratum Lyssklicker appellant: quam non similem modo Turneri cinclot, sed prorsus eandem esse conijcio, cuius figuram sequens pagina cotinet.

De Motacilla quam nostri albam cognominant (p. 593).

Turnerus in libro de Auibus Cnipologon Aristotelis (id est culicilegâ interprete Gaza) hâc auem esse putat...[quotation]...Sed postea in epistola ad me, Culicilegam Aristotelis (inquit) in terra Bergensi uidi, tota cinerei fere coloris est, & speciem habet pici Martij, illa uerò quam culicilegam esse putabâ, est uariola nisi fallor.

De Nycticorace (pp. 602—604).

TURNERUS in litteris ad me missis caprimulgum auem se uidisse scribit prope Bonnam (Germaniæ ciutatem ad ripam Rheni, supra Colonniam,) ubi à uulgo appellatur Nachtrauen, id est coruus nocturnus. Nos in præcedente pagina effigiem adieicimus auis quem circa Argentoratum, ut audio Nachtrim, alibi Nachtraub nominatur. quæ tamen neq caprimulgus neq nycticorax mihi uidetur. [The figure is of the Night-Heron, unmistakably.]

De Onocratalo (pp. 607—608).

Onocrotalus Machliniensis, quæ Vogelhain à Brabantis uocatur, quinquaginta annis, ut ipsi ferunt, Machliniæ uixit, cygno maior est. penne foris albicant, in fundo uerò rubrum
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quiddam ostendunt. collum duas spithamas longum est, aut paulō longius, rostrum, quod rubrum habet, dorantali longitudine est & quatuor uncias longius, & in fine hami propemodum more incuruum & versus finem latius latiusq, proturbinatur. crura anserinis similia, breuia, nimirum pro magnitudine tanti corporis: in pectore magnum habet ueluti sacculum protuberantem Alis est longissimis, & ipsis in summa extremitate nigris, Guil. Turnerus in epistola ad me....

Bononiae uisus est mihi onocrotalus (uerba sunt ex epistola Angli cuiusdam amici ad me) plumis cinereis tectus, cygno maior, palmipes, capite mergi, rostro quatuor palmas fere longo, & in fine adunco, collo deplumi, amplissimo, ut anatem deuorare posset. Captam aiebat in lacu Benaco....

Solis uictitat piscibus, & bis tantum anno bibit. Turnerus...Pisces praesertim anguillas auorat botaurus auis, Turnerus. idem amicus quidam de onocrotalo ad me scripsit. ego onocrotalum quidem hoc facere non dubito: de botauro dubitari potest, praesertim cum multi etiā non indocti cum onocrotalo eum confundant.

De Perdice (p. 644).

...Quæ Aristoteles & Ouidius de perdice scribunt, omnia nostræ perdici uulgari conueniunt, nempe uolandì nidulandiq., ratio, astutia, circa prolem soliciitudo, corporis grauitas, & uocis stridor, à quo etiam nomen accepisse uidetur, Turnerus in epistola ad nos.

The 'Avium præcipuarum...Historia' was reprinted by Dr George Thackeray, Provost of King's College, Cambridge, in 1823; but the reprint is as rare as, if not rarer than, the original. Two copies are in the Library of King's College.

The following is a list of the Birds determined by Turner.

ALAUDIDÆ. Alauda arvensis. Lerk or Laverock. German Lecher, p. 8o.
A. arborea. Wodlerck, p. 8o.
A. sp.? Wilde Lerc or Heth Lerk. G. Heid Lecher, p. 8o.
Galerita cristata. [No English name.] G. Copera, p. 8o.

[Turner recognised two kinds of Kingfishers described by Aristotle and Pliny, but does not state what they are].
ANATIDÆ. *Anas boscas.* Duck, pp. 22, 48.
*Anser* (2 species.) Gose. G. Ganss, p. 22.
*Bernicla leucopsis.* Brant or Bernicle Gose, p. 26.
*Cygnus olor.* Swan. G. Swän, p. 120.
*Mareca penelope.* Wigene, p. 48.
*Nyroca ferina.* Pochard, p. 48.
*Querquedula crecca.* Tele, p. 48.
ARDEIDÆ. *Ardea sp.?* (white). Cryel or Dwarf Heron, p. 38.
*A. cinerea.* Heron. G. Reyger, p. 36.
*Botaurus stellaris.* Bittour, Butler, Buttour, or Myre Dromble.
*G. Pittour, Rosdom,* pp. 38, 40, 122.
CAPRIMULGIDÆ. *Caprimulgus europaeus.* [No English name], p. 48.
CERTHIIDÆ. *Certhia familiaris.* Creper, p. 52.
CICONIDÆ. *Ciconia alba.* Stork.
*G. Storck,* Sax. Ebeher, p. 54.
CINCLIDÆ. *Cinclus aquaticus.* Water-Craw, p. 22.
COLUMBIDÆ. *Columbia sp.?* Dove.
[Venice Dove, p. 62.]
*C. anas.* Stocdove. G. *Holsttaube,* p. 60.
*C. palumbus.* Coushot or Ringged Dove. G. *Ringel Taube,* p. 60.
*Turtur communis.* Turtel Duve, p. 60.
CORVIDÆ. *Corvus corax.* Raven.
*G. Rabe,* p. 64.
*C. cornix.* Winter Crow, p. 64.
*C. corone.* Crow. G. *Krae,* Kraeg, p. 64.
*C. frugilegus.* [No English name], p. 64.
*C. monedula.* Caddo, Chogh, Ka. G. Döl, Sax. Älke, p. 92.
*Nucifraga caryocatactes.* [No English name.] G. *Nousbrecher,* p. 94.
[Confounded with *P. alpinus.*]
CUCULIDÆ. *Cuculus canorus.* Cuk-kow, or Gouke. G. Kukkuck, p. 66.
FALCONIDÆ. *Accipiter nisus.* [No English name], p. 66.
*Aquila sp.?* Right Egle. G. *Edel Ärn,* p. 36.
*Astur palumbarius?* Sparhauc. G. Sperwer, p. 18.
*Buteo vulgaris.* Bushard, p. 16.
*Circus eruginosus.* Balbushard, p. 32.
*C. cyaneus.* Hen-Harroer, Ringtale, p. 18.
[Turner calls the male Hen-Harroer, the female Ringtale, erroneously considering them two species.]
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FALCONIDÆ. *F. subbuteo.* Hobby, p. 18.
*Gypaetus barbatus* [?]. [No English name], p. 128.
*Milvus ater.* [No English name], p. 116.
*Tinnunculus alaudarius.* Kastrel, Kistrel, or Steingall, p. 166.

*E. miliaria.* Bunting. G. Gersthammer, pp. 134, 158.
*E. schaeniclus.* Rede Sparrow. G. Reydt Müss, pp. 102, 134.
*Linota cannabina?* Linot. G. Flasfinc, pp. 50, 158.
*Serinus canarius.* Canary Bird, p. 108.


HIRUNDINIDÆ. *Cotile riparia.*


IBIDIDÆ. *Comatibis eremita.* [Red-cheeked Ibis]. G. Waltrap, pp. 92, 94.

*Lanius minor?* [No English name], p. 168.

LARIDÆ. *Hydrochelidon nigra.* Stern, p. 78.
*Larus sp.?* [Grey Gull.] Se Cob or See Gell, p. 78.
*L. ridibundus.* White Semaw with a blak cop, pp. 74, 76.

MEROPIDÆ. *Merops apiaster.* [No English name], p. 112.

MOTACILLIDÆ. *Anthus pratensis.* Titlyng, p. 68.
*Motacilla lugubris* or *M. alba.* Wagtale. G. Wasser Steltz, Quikstertz, p. 64.


OTIDIDÆ. *Otis tarda.* Bistard or Bustard. G. Träp or Trap Ganss, pp. 130, 166.

PANDIONIDÆ. *Pandion haliaëtus.* Osprey. G. Vîshärn, pp. 34, 36.

PARIDÆ. *Parus cæruleus.* Non. p. 132.
PARIDÆ. P. major. Great Titmous, or Great Oxei. G. Köl-
meys, p. 130.
P. palustris or P. ater. Less Titmous. G. Meelmeys, p. 130.
PHALACROCORACIDÆ. Phalacro-
P. graculus? Douker (pt), Loun, Dücher (pt.), p. 176.
PHASIANIDÆ. Attagen [possibly Bonasa sylvestris, the Hazel
Grouse], pp. 42, 44.
Gallus ferrugineus (domesticus). G. Han, Hen, Sax.
Hon, p. 82.
Numida meleagris. [No English
name?] Kok of Inde? pp. 82, 86, 140.
PHÆNIX. [No English name], p. 140.
PICIDÆ. Dendrocopos major?
Specht, or Wodspecht. G. Elsterspecht, pp. 146, 148.
Gecinus viridis. Hewhole, Hu-
Ilyx torquilla. [No English
name], pp. 146, 148.
Picus martius. [No English
name]. G. Craspecht, p. 148.
PLATALEIDÆ. Platalea leucorodia.
Shovelard. G. Lefer, Löffel Ganss, pp. 38, 150.
PODICIPEDIDÆ. Podicipes minor,
Douker (pt), Dücher (pt), p. 176.
PROCELLARIIDÆ. Puffinus sp.? Bird of Diomedé, p. 70.
PSITTACIDÆ. Parrot. Popinjay.
G. Papégay, p. 150.
RALLIDÆ. Crex pratensis. Daker
Hen, Rale (?) G. Schryk, Scirica, pp. 70, 128, 140.
Fulica nigra. Cout, pp. 32, 76.
Gallinula chloropus. Mot Hen or
Porphyrio caelestis. [No English
name], p. 152.
SCOLOPACIDÆ. Actitis hypoleuca.
Water Swallow. G. Steynbisser, pp. 54, 56.
Limosa belgica. Godwitt or
Fedoa, p. 44.
Totanus calidris. Redshanc, p. 102.
SITTIDÆ. Sitta caesia. Nut-jobber.
G. Nushäker, Meyspecht, p. 162.
STRIGIDÆ. Asio otus. Horn Oul.
G. Rausel, Schleier Eul, p. 130.
Bubo ignavus. Lyke Foule. G.
Schufuss, Schüffel, Kautz, p. 46.
Strix stridula (?). Owl, Howlet.
G. Eul, Sax. Üle, p. 120.
STRUTHIONIDÆ. Struthio camelus.
STURNIDÆ. Sturnus vulgaris.
Sterlyng. G. Stär, Stör, p. 164.
SULIDÆ. Sula bassana. Solend
Guse, p. 28.
SYLVIIDÆ. Accentor modularis (?)
Hedge-sparrow, or Dike Smou-
Daulias luscinia. Nyghtyngall.
G. Nachtgäl, p. 108.

Pratincola rubicola. Stonchatter or Mortetter. G. Klein Brachvogelchen, p. 158.

Regulus cristatus(?). [No English name.] G. Gold Hendlin, pp. 154, 168.


Sylvia atricapilla(?). [No English name.] G. Grasmuklen, p. 44.


Lagopus mutus. [No English name], p. 104.

L. scoticus. (?) Morhen, p. 86.

Tetrao tetrix. [No English name], p. 42.


**Turdidae.** Turdus iliacus, muscis, viscivorus. Thrusche, Thrushe, Throssel, Mavis, or Wyngthrushe. G. Drossel, Durstel, Weingäerdsvoegel, pp. 170, 172.


T. pilaris. Feldfare or Feldefare. G. Krammesvögel, Wachholtervögel, pp. 58, 170. [Confounded with Mistletoe Thrush?]


AVIVM
PRAECIPV
ARVM, QVARVM
APVD PLINIVM ET ARISTOTELEM MENTIO EST, BREUIS & SUCCINCTA HISTORIA.

Ex optimis quibusque scriptoribus contexta, scholio illu strata & aucta.

Adieisis nominibus Graecis, Germanicis & Britannicis.

Per Dn. Guilielmum Turnerum, artium & Medicinæ doctorem.

Colonice excudebat Ioan. Gymnicus,
Anno M. D. XLIII.
Introduction

*L. scoticus.* (?) Morhen, p. 86.
*Tetrao tetrix.* [No English]

Tetrao, p. 42.

G. Kuningsg...
Ilustrissimo VValliae principi, Eduuardo filio hæredi, ferenissimi & potentissimi Henrici VIII. regis Angliæ, Franciæ, & Hiberniæ, Guilielmus Turnerus S. P. D.

PRUDENS admodum, & si quid ego intelliceo (illustrissime princeps) necessaria imprimis regij prophetæ fuit admonitio, qua reges, principes & iudices terræ, ut intelligerent, & eruditionem confequerentur, admonuit. Nam ut fummus ille rerũ architectus Deus optimus maximus, caput super omnes reliquas corporis partes in homine, qui perfectissime in se Reipublicæ simulachrum gerit, collocavit, & omnes quinque fensus simul in eo repofuit, ut pro reliquis omnibus mēbris (quibus folus tactus est conceffus) uideret, audiret, guftaret & odoret, & eorum faluti confuleretur: ita principem Reipublicæ, corpori ex multis membris conflato, ueluti caput praefecit, ut prudentia, eruditione, & fensibus suis non tam exterioribus, quà inte-rioribus, totius Reipublicæ commodis & faluti prospiceret. In pedibus uifum, in tibijs auditum, in manibus olfaetum, in brachijs odoratum nemo requirit: sed hæc omnia in capite requiruntur.
To the most illustrious Prince of Wales, Edward, son and heir of the most serene and mighty Henry VIII, King of England, France and Ireland, William Turner wishes long life and health.

EXCEEDING wise, and if I understand aright, necessary above all things, most illustrious Prince, was the warning of the royal prophet, in which he admonished kings, princes, and judges of the earth that they should have understanding and seek learning. For, as that architect supreme of the universe, God most good and great, placed the head above all the remaining parts of the body in man, who in himself shews forth the image of a most perfect State, and stored up in it all the five senses at once, that it should see, hear, taste, and smell for all the remaining members (to which touch alone has been allowed), and should consult for their well-being; so he hath set the Prince, as it were a head, over the State, a body welded together of many members, that he should provide for the advantage and well-being of the whole State by his wisdom, learning and senses, not so much external as internal. No one demands sight in the feet, hearing in the legs, smell\(^1\) in the hands, or smell in the arms; but all these things are necessary in the head.

\(^1\) This should probably be “taste” (gustum).
Quum igitur tot senfus in capite uni tantū corpori præfecto requirantur: quot senfus, quantum sapientia & eruditionis ab eo capite exi-
[g. 5]guntur, cui plus quàm trecentorum milium corporum præfectura committitur? Quod si quis forfan respondeat, non in principe, sed in ijs folis, qui illi à consilijs sunt, eruditionem & prudentiam requiri: hunc ego dignum cenferē, qui pro tali responfo, omnibus senfibus, excepto taétu, orbatus in media fylua uepribus & spinis densa, caueis & fosīs formidabili, quatuor ducibus comitatus flatueretur, nobis dicturus, nū proprijs malit uti senfibus an alenis? & num totius illi sit, ducum fuorum incertorum senfibus, an proprijs duci? & qua ratione cæcus & furdus, odoratu & guftu deſtitutus ipſe, cecíne an ui-
dētes fui ſint dues, dignofcere poſsit?

In consiliarijs fummam prudentiam & eru-
[g. 6]ditionem non uulgarem requiri, non diffiteor: uerūm non in ijs folis, nam si illi, qui principi sunt à consilijs, ad tempus bene confluent, & poſtea in ipſius pernicium malè ſuadeant, ut Absaloni Achitofelem feciſse legimus: quomodo pernicifum illorum consiliū ipſe ſubodorabitur & deprahehendet, nisi eruditione & prudentia consiliarios fuos aut ſuperet, aut faltem æquet? Quare nū in consiliarijs tantūm, sed in principe ipſo eruditio & sapientia requiruntur. Non de-
funt, qui fatis esse principi exiſtimant, quo cæte-
ris mortalibus præſtet, si regio ueftitu, diuitijs, copijs, ſcitè pulſando teſtudinem, & tela dextrē uiibrando, subditis fuis preſluceat: uerūm fortif-
[g. 7]simi quīq & sapientiſsimi reges longe diuerſum
Inasmuch therefore as so many senses are requisite in the head, which is set over one body alone, how many senses and what a wealth of wisdom and learning are demanded from that head, to whom more than three hundred thousand bodies are given in charge? But if any should chance to answer that learning and wisdom are needed not in the Prince, but only in those who are his councillors, I should consider it fitting that he for such a reply should be set, accompanied by four guides, in the midst of a wood tangled with briers and thorns, and dangerous with its pits and ditches, deprived of all his senses, except that of touch, and should tell us whether he preferred to use his own senses or those of others: or whether it would be safer for him to be led by the senses of his doubting guides or by his own; and in what way he, being blind and deaf, and destitute of smell and taste, could determine whether his guides were blind or able to see.

I fail not to confess that the highest wisdom, and learning of no common sort, are requisite in councillors, but not in them alone; for if they who are the advisers of the Prince, give good counsel for the time, and afterwards prompt him ill to his destruction, as we read that Achitofel did in the case of Absalom, how shall he smell out and detect their fatal advice, unless he either excels or at least equals his councillors in learning and wisdom? Wherefore not only in councillors but in the Prince himself are learning and wisdom requisite. There are not wanting those who think it enough for a Prince, as matters in which he should surpass other mortals, if he outshines his subjects in royal garb, in riches, in resources, in cunningly striking the lyre, and in skilfully throwing the spear; but all the bravest and wisest kings have
Epistola Nuncupatoria

fenferunt. Nā Mithridates rex Pōti & Bithyniē, se regnorum suorum caput esse intelligēs, et tot corporibus, quot prērēat, unicā uernaculā suam linguā minimē sufficere, uiginti duas linguas gētium, quas sub ditione suā habuit, ita perfecte didicit & percalluit, ut uiginti illarum gentium uiris fine interprete promptē respondērit, & suā cuique lingua non fecus atque gentilis fuissent, locutus fuerit. Idē rerum abditas naturās ita peruefligauit, & in re medica ita fœliciter fuit uerfatus, ut aduerfs lethalia uenena antidotum, quod hodie etiamnum ab eo nomen fortitum, Mithridatium appellatur, suō Marte inuenerit. Alexander ille Macedonum rex, tam [p. 8] naturāe quàm fortunāe dotibus iure suspiciendus, tanto bonarum artium & philosophiāe potissimum fstudio flagrauit, ut etiā in zelotypiam quandam literarium inciderit. Nam is cūm omnem propē Asiām armis & exercitu teneret, ubi primū Aristotelem libros suos de auscultatione physica iuulgasse acceperat, in tantis negocijs cum Aristotele, missā statim epištola de editis libris, his uerbis expositulabat: Quōd disciplinas ākroamathikāς edidisti, non recte fecisti. nam qua alia re cæteris præfāre poterimus, si ea, quae abs te accipimus, omnium profus fuerint communia? Quippe ego doctrina anteire malim, quàm copijs atqū opulentij. Hae Alexander.

Diuino approbatus oraculo rex ille Davud,
thought quite differently. For Mithridates, king of Pontus and Bithynia, understanding that he was the head of his domains, and that his native tongue alone was by no means sufficient for the numerous bodies, over which he reigned, learned so perfectly and understood so thoroughly the twenty-two tongues\(^1\) of the nations, which he had under his sway, that he gave immediate answers to twenty men of those nations without an interpreter, and spoke to each in his own tongue just as if it had been native to him. He also so thoroughly traced out the hidden natures of things, and occupied himself to such good purpose in the science of medicine, that he discovered by his own exertions an antidote to deadly poisons, which even to-day is called Mithridatium, a name derived from him. The great Alexander, king of the Macedonians, rightly renowned as much for the gifts of nature as for those of fortune, burned with so great a zeal for the noble arts, and philosophy in particular, that he even descended to a sort of literary jealousy. For though he was holding almost all Asia by force of arms and his troops, when first he heard that Aristotle had made public his books ‘De Auscultatione Physica,’ in the midst of such great concerns he expostulated with Aristotle in the following words, a letter having been at once sent off concerning the publication of the books: “In that you have published your teachings called \(\text{ακρωματικαί}\) you have not done rightly; for in what other thing shall I be able to excel the rest, if those things, which I have heard from you, become henceforth the common property of all? For I should prefer to stand first in learning rather than in resources and wealth.” Thus said Alexander.

The great king David, approved by the voice of

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1 ‘Duas’ is perhaps a misprint for ‘duarum.’
[p. 9] qui & propheta fuit diuino numine adflatus, atq
ddeo qd regi maximè necessariù foret, cogno-
fcens, ante omnia literas, nempe facras expetuit,
ut fibi tèperare non potuerit, quin diceret, Bene-
dictus es domine, doce me iustificationes tuas,
in uia mandatorù tuorum delectatus fum, ficut in
omnia eius diuitijs : in mandatis tuis exercerbor, &
considerabo uias tuas. Reuela oculos meos, &
considerabo mirabilia de lege tua. Bonitatem &
disciplinar & scientiam doce me : ego autem in
toto corde meo scrutabor mandata tua. Nifi
quod lex tua meditatio mea est, tunc fortè perif-
fem in humilitate mea. Quam dulcia faeitus
meis eloquia tua, super mel or meo. Bonum
mihi lex oris tui super milia auri & argètì.

[p. 10] Lucerna pedibus meis verbum tuum, & lumen
semitis meis. Declaratio sermonum tuorum il-
linat, & intellectum dat paruulis. Haefenus
rex David, & pace & bello omnium regum il-
lustrissimus.

Rex Solomon huius filius, omniù, quos un-
quà terra genuit, sapientiss. cuius unius autori-
tati plus tribuendum est, quam sexcentis adula-
toribus diuersum fuadètibus, cùm totius orbis
conditor & omnium bonorum largitor Deus
pater, illi, quod fibi optimum, & ex usu suo
maxime fore iudicaret, uto offerret, & poscenti
mox sp daturù promitteret, ad hunc modum, ut
diuinæ literæ testantur, respondit. Nunc domi-
ne Deus, tu me regnare fecisti seruum tuum pro

[p. 11] Dauide patre meo, ego autem sum puer par-
uulus, & ignorans ingressù, & introitù meù : &
seruus tuus in medio est populi, quem elegisti,
God, who was moreover a prophet filled with divine inspiration, and therefore well aware of what was especially necessary for a king, sought before all things learning, and that of course divine, so that he was unable to restrain himself from saying "Blessed art thou, O Lord, teach me thy righteousness, I have delighted in the way of thy commandments, as in all riches: in thy statutes will I exercise myself, and I will consider thy ways. Open thou mine eyes, and I will consider the wonderful things of thy law. Teach me goodness and instruction and learning; but with my whole heart will I examine thy commandments. Unless thy law had been my meditation, then should I perchance have perished in my low estate. How sweet are thy sayings to my mouth, better than honey to my lips. The law of thy mouth is a good to me beyond thousands of gold and silver. Thy word is a lantern unto my feet, and a light unto my paths. The telling of thy discourses giveth light and understanding to babes." Thus far king David, the most illustrious of all kings both in peace and war.

King Solomon, his son, the wisest of all that earth ever bore, to whose single authority more weight is to be given than to six hundred flatterers persuading to a different course, when God the Father, maker of all the world and giver of all good things, of his own accord offered to him what he should judge to be best for himself and for his greatest advantage, and promised that he would grant it at once on his request, replied in this manner, as the Scriptures testify. "Now, O Lord God, thou hast made me, thy servant, to reign in the room of David my father, but I am a little child, and know not my coming in and entering; and thy servant is in the midst of the people whom thou hast chosen, an in-
populi infiniti, qui numerari & summari non potest præ multitudine. Dabis ergò feruo tuo cor docile, ut populum tuum iudicare possit, & discernere inter bonum & malum: quis enim potest iudicare populum istum, populum tuum hunc multum? Huc ufs Solomon, qui in philosopha tam diuina quàm humana ita non multis pòst annis profecit, ut de stirpibus à cedro ufq ad hisfopum disputauerit, & de bestijs, uolucribus, reptilibus, & piscibus disseruerit.


Qua de causa, illufrissime & optime princeps, fapiētissimorum & fortissimorum regum exempla fecutus, atq potentiissimi & eruditissimi patris tui consilio obtemperans, qui te ad meliores imbibendas litteras, nunquam non inuitat, incitat & hortatur, dum ætas tua adhuc tenera
numerable people, a people which cannot be numbered or counted for their multitude. Thou shalt give therefore to thy servant a heart that may be taught, that he may be able to judge thy people, and to discern between good and evil: for who is able to judge this people, this great people of thine?" Thus far spoke Solomon, who not many years afterwards so excelled in philosophy both divine and human that he disserted about plants from the cedar even to the hyssop, and discoursed of beasts, birds, reptiles, and fishes.

Wherefore all the most wise and brave Princes have not considered it sufficient to surpass their subjects in riches, honours, garb, gait, and warlike glory, unless beyond this they excelled them far in learning, tongues, and philosophy both divine and human, and left them in the rear. And this your father, the most learned of all the kings who are alive at the present day, well understanding, as becomes so great a king, and one to whom the helm of the State is entrusted, wisely pondering in his mind how necessary learning and philosophy are, always committed his children to the care of the most learned of instructors. For over your brother the Duke of Richmond, of pious memory, he set Georgius Folberius, once my tutor, a man of remarkable learning, and a wondrous handicraftsman for rightly instructing youth, and now over you (as I hear) a man by far the most learned of all.

Wherefore, most illustrious and worthy Prince, following the steps of the wisest and bravest kings, and yielding to the advice of your most powerful and learned father, who so constantly invites you to the draught of superior learning, spurs you on, and exhorts you, while your years are yet tender and
eft, & literarū capacissima, omne genus bona-
rum literarum obuijs ulnis amplectere, disce, &
imbibe, & exantlati in bonas literas laboris olim
te minimè pœnitebit. Sed ut ad propostam
metam minori cum negocio possis peruenire,
libellum De historia auium, in quo Latinis
nominibus Graeca, Germanica & Britānica in
[p. 14] gratiam tuam apposui, ex Aristotele & Plinio,
& optimis quibusq; scriptoribus contextui. Hunc
ego nominis tui celebritati dedico, & dono: etiā
atiq; etiā te obteftans, ut hoc meum qualecunq;
munusculum æqui boni'q; consulas. Quod si te
facturum intellexero, & hunc libellum figuris &
auium moribus, & medicinis auctum, & de
herbis alium etiam librum, breui, vulente Deo,
in lucem emittam. Vale. Dominus Iefus
te nobis sanctissimis moribus
institutum, & optimis lite-
ris imbutum, quàm diu-
tiffimè inculumem
conferuet.

Coloniæ 5. Idus Februarij,
Anno M.D.XLIII.
most amenable to learning, embrace with open arms every kind of noble literature, learn and drink it in, and hereafter you will surely not repent of the labour expended upon this noble literature. But that you may be able to reach with less trouble the goal that is laid before you I have compiled from Aristotle and Pliny and all the best writers this little book on 'The History of Birds,' in which I have placed for your pleasure the Greek, German, and British names side by side with the Latin. This I dedicate and offer to the glory of your name: again and again praying you to receive this little gift, such as it is, with fair and favourable consideration. And if I understand that you will do this, I will shortly, God willing, bring to the light of day a further edition of this little book with figures of the birds, their habits, and curative properties, as well as another book on plants. Farewell. May the Lord Jesus preserve you as long as possible unharmed to us, trained in most holy ways and filled with the best of learning.

Cullen [Cologne]. February 9th, 1544.

Aristoteles

Accipitrum genus præcipuum Buteo est, Triörcha, à numero tectium nuncupatus: secundum æfalo, tertium circus. Stellaris autem, palümbarius, & perníx differunt. Appellantur subuteones, qui láiores sunt: alii percae & fringillarij uocantur: alii læues & rubetarij, qui abundé uiuunt, atque humiuola sunt. Genera non pauciora quàm decem esse accipitrum aliqui prodiderunt, quà modo quoq uenandī inter se diffident. Alij enim cOLUMBam humi confidentem, rapiunt, uolantem non appetunt: alii super arborem, aut tæle quid confendentem, uenantur: sin humi est, aut uolat, non inuadunt. Alij neq humi, neq in sublimi manentē, adgrediūtur, sed uolantem capere conantur. Fertur etiam à cO呪is quoq accipitru genus cognoscì. Itaq cùm accipiter prouolat, si sublimipeta est, manent quo confiterunt loco: sed si humipeta qui prouolat, est, non manēt, sed continuò auolant.

1 Hist. An. Bk IX. 128—130.
2 Aristotle has simply κράτιστος μὲν ὁ τριόρχης.
3 Other readings are πτερνις, πέρνης, πτέρνης.
4 Instead of πλατύπτερον, some texts have πλατύπτερον, which would make better sense and mean 'broad-winged.'
5 λειο, or according to another text ελειο.
6 The word ευβιόστατοι here, and corresponding expressions throughout the passages quoted in this book, might possibly mean that the birds in question have no particular faults, or are of ordinary respectability. Gaza, however, followed as usual by Turner, seems to have interpreted the word rightly here.
7 These three words are not found in Aristotle.
Of the ten kinds of Accipitres.

Aristotle.

The chief kind of Accipitres is Buteo, which from the number of its testicles is named Triorcha, Æsalo is the second, Circus is the third. Again Stellaris, Palumbarius, and Pernix differ. Those which have more breadth are called Subuteones; other kinds are named Percæ and Fringillarii; others Læves and Rubetarii, which get their living most easily, and fly near to the ground. Some have asserted that there are no fewer than ten kinds of the Accipitres which differ from each other in their several modes of hunting. For some sorts seize a Dove when sitting on the ground, but do not touch one flying; others seek their prey when perched upon a tree, or such like, but if it be on the ground or flying do not attack it. And others seize it neither on the ground, nor when resting aloft, but strive to catch it flying. Moreover it is said that each kind of Accipitres is recognised by Doves. So, when the Accipiter comes forth, if it be such as hunts on high, they stay where they have settled, but, if that which comes be such as takes them on the ground, they stay not, but forthwith fly off.

Quanquam Aristoteles decem esse accipitrum genera tradat, & Plinius sedecim: neuter tamen horum hæc ita distinxit genera, & descriptit, ut proeliue sit lectori suum cuique peculiare nomen ex illorum praefcriptis imponere. Quare à me nemo horum exactam differentiam, & cuuidque nomen Britannicum aut Germanicum cum Latino & Graeco coniunctum, iure poterit exigere. Ego tamen, quod nomen Britannicum, cuq; Latino imponendum esse censo, lectori minimè celabo.

Buteo τριόρχης Græce diclus, Anglorum busharda est, nisi fallar: nam miluo magnitudine æquiparatur, semperi: ipse cernitur, qualem Aristoteles oclau libro de historia animalium buteonem describit.

Aefalo. Άισάλων, quoniam iuxta Plinij sententiam omni tempore appareat, & inter minores accipitres sola merlina siue smerla, semper adpareat, mihi Anglorum merlina, & Germanor. smerla esse uidetur.

1 Hist. Nat. Lib. x. cap. viii.
2 If the reading pecuniae is accepted, the meaning would appear to be 'for cattle breeding.'
Of Accipitres we have found sixteen kinds. Circus among them, halting in a foot, of lucky omen in nuptial affairs and money business. Triorches next, to which Phœmone\(^1\) gave the foremost place in auspices, named from the number of its testicles: the Romans call it Buteo and the Greeks \(Æ\)salon: it is the only kind which may be seen at every time. The rest leave us in winter. An Accipiter that flies by night is called Cymindis; it is rarely found in woodlands, in the day it scarce can see: it wages deadly warfare with the Aquila, and they are often captured clinging to each other. So far Pliny.

Though Aristotle may set forth that there are ten kinds of Accipitres, and Pliny that there are sixteen, yet neither of them has distinguished or described the kinds so that it may be easy for a reader to apply to each its proper name from their accounts. So no one can in fairness claim from me their exact difference, nor yet the British or the German name of each, together with the Latin or the Greek equivalent. I will, however, surely not conceal from you, my reader, what I think to be the British name, and to which Latin name it ought to be applied.

Buteo, called in Greek \(\tauρ\ι\ο\'\ρ\ATEG\), if I do not err, is the Buzzard of the English, for it is compared with Milvus as to size; moreover it is seen at all times, and is such a bird as Aristotle makes his Buteo in the eighth book of the 'History of Animals.'

\(\Lambda\ι\ς\α\λ\ω\ν\), since in Pliny's judgment it appears at every season, and among the smaller Hawks the Merlin or the Smerl alone seems to appear\(^2\) at all times, is, I think, the Merlin of the English and Smerl of the Germans.

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1 Phœmone, called 'Daughter of Apollo,' was a priestess at Delphi. (See Pliny Hist. Nat. ed. Hardouin: Lipsiae, 1791, Index Auctorum, p. 340.)

2 This seems to be the force of the subjunctive here, if it is not an oversight.

T.
Accipitrem palumarium ideo Anglorum sparrowcam, & Germanorum speRUERum esse puto, quod palumbes, columbos, perdices & grandinuscelas aues infequatur.


Subbuteonem esse puto, quem Angli ringtalam appel- lant, ab albo circulo, qui caudam circuit. Colore est medio inter fuluum & nigrù, buteone paulò minor, sed multò agilior. Prædam eodem modo, quo superior captat.

DE ALCEDONE.

ALCEDON, alcedo, Anglice the kynges fissher, Germanicè eyn eisfugel.

ARISTOTELES¹.

Alcedo non multò amplior passere est, colore tum uiridi, tum cœruleo, tum etiam leuiter purpureo insignis: uidelicet non particulatim colore ita distincta, sed ex indiscreto uariè refulgens corpore toto & alis & collo, rostrum subuiride, longum & tener. Alcedonum² quo-

¹ Hist. An. Bk IX. 85.
² Hist. An. Bk VIII. 47.
The Accipiter palumbarius I take to be the Sparrow-Hawk of the English and the Sperwer of the Germans, since it preys on Doves, Pigeons, and Partridges and the bigger sorts of birds.

The Fringillarius I guess to be the Hobby of the English. Now the Hobby is a very little Hawk of darker colour than the other kinds. It has upon the head two spots of deep black on a lighter ground. It catches for the most part Larks and Finches, nests on lofty trees, and is not seen in winter anywhere.

The Rubetarius I think to be that Hawk which English people name Hen-Harrier. Further it gets this name among our countrymen from butchering their fowls. It exceeds the Palumbarius in size, and is in colour ashen. It suddenly strikes birds when sitting in the fields upon the ground, as well as fowls in towns and villages. Baulked of its prey it steals off silently, nor does it ever make a second swoop. It flies along the ground the most of all.

The Subbuteo I think to be that Hawk which Englishmen call Ringtail from the ring of white that reaches round the tail. In colour it is midway from fulvous to black; it is a little smaller than the Buteo, but much more active. It catches prey in the same manner as the bird above.

OF THE ALCEDO.

Ἀλεονων, alcedo, in English the kynges fisher, in German eyn eissvogel.

ARISTOTLE.

The Alcedo, not much larger than the Passer, is remarkable for being in its colour green and blue, and even slightly purple, not, that is to say, in separate parts, as if it had the colour perfectly distinct, but variably shining over every part alike of the whole body, with the wings and head. The beak is greenish, and is long and thin. The tribe of

1 Later authors are probably more correct in applying this name to the Goshawk, which suits even Turner's account better.
que genus aquas adamat, quod duplex est: alterum uocale, harundinibus insidens, alterum mutum, quod ampliore corpore est. utrique dor-fum cœruleum. Sed alcedo apud mare quoque uersatur.

Plinius.


1 Hist. Nat. Lib. x. cap. xxxii.
2 Lege ‘passere.’
Kingfishers, of which there are two sorts, is fond of watersides: one is a vocal bird, which sits on reeds, the other, which is of a larger size, is mute. The back is blue in both. The Kingfisher, however, also haunts the sea.

**Pliny.**

This bird is little bigger than the Passer, for the most part blue in colour, with the wings alone of purple mixed with white, and with a long and slender neck. Each of the two kinds may be distinguished by its size and voice. The lesser sing in reed-beds. It is very rare to see the Halcyon, and this occurs only towards the setting of the Pleiades and near the solstice or in winter-time, when, after circling round the ship awhile, it hurriedly departs again to its retreat. They breed in winter, at the season called the Halcyon days, wherein the sea is calm and fit for navigation, the Sicilian sea particularly so. Elsewhere indeed the ocean is less boisterous. The Sicilian is certainly gentle enough. Now these birds build their nests in the seven days before the winter solstice, and hatch out their young in the seven following. Their nests compel our wonder, of a ball-like shape, with a small jutting part and very narrow hole, like sponges of great size; they cannot be cut open with an iron tool, but may be broken by a vigorous blow, as dry sea-foam may be. It is not known of what these are composed. Some think of pointed bones, since the birds live on fish. They also dive in rivers, and lay five eggs each.

1 For the origin of this ancient tradition, the reader may be referred to any work dealing with Greek mythology.
2 By 'dry sea-foam' Pliny probably meant masses of whelks' eggs.

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Plinio
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Caudam
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Nidum
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Morpetenses,
apud
quos
auem
uidi,
cornicem
uocant
aquaticam.

DE ANATE.

Nïtta, anas, Anglice a duck, Germanicè eyn endt.

Plinius¹.


DE ANSERE.

Xïv, anser, Anglice a goose, Germanicè eyn ganß.

Aristoteles finul & Plinius duo præcipua anserum genera faciunt: hic anserem in maiorem & minorem, ille in domitu et fœru dividens. Sed Plin. præter hæc duo anserum præcipua genera, Penelopes² et chenalopeces, ut unus textus habet, & ut alius habet, chenalopeces, & chenerotes anserini esse generis tradit. Prior lectio sic habet,

¹ Hist. Nat. Lib. x. cap. xxxviii.
² Judging from p. 148 of the original work the singular of this word is 'Penelops,' and it is probably by mistake that the Wigeon has been called Mareca penelope.
Besides the two kinds thus described by Aristotle and Pliny I know of a bird, of which, if it should not be properly ascribed to the Kingfisher tribe, I really cannot say under what head it ought to go. It is a little smaller than a Starling, with the body wholly black, except for a white belly, and it has the tail comparatively short, the beak a little shorter than the Kingfisher. Before a flight it dips repeatedly, after the manner of the Kingfisher, and cries out as it flies; it is so like the Kingfisher in voice that, if you did not see it, you would swear it was a Kingfisher. I have observed it on the banks of streams not far from the sea-side, but nowhere else. It lives on little fishes, like the aforesaid kinds of Kingfishers. I never saw its nest. The inhabitants of Morpeth, where I saw the bird, call it a water craw.

**OF THE ANAS.**

*νυτα, anas, in English a duck, in German eyn endt.

**PLINY.**

Anates only, and birds of like kind, rise in the air at once, and make straight for the sky, and that even from the water.

**OF THE ANSER.**

*νυ, anser, in English a goose, in German eyn ganss.

Aristotle agrees with Pliny in making two chief kinds of Geese, the latter separating them into the greater and the less, the former into tame and wild. But Pliny tells us that besides these two chief kinds of Geese, there are of the Goose kind Penelopes and Chenalopeces, as one text has it, as another goes, Chenalopeces and Chenerotes. The first reading stands thus:

1 The bird meant is undoubtedly the Water Ousel or Dipper (*Cinclus aquaticus*), which still goes by the name of Water Craw in the north of England. It is curious that Turner should never have seen its nest when he was in Northumberland.
Anserū generis sunt Penelopes, & quibus lautiore epulas Britannia non nouit, chenalopeces, anfere ferè minores. Altera sic habet: Anferini generis sunt chenalopeces & quib aut lautiore epulas Britannia nō nouit, chenerotes¹.


¹ Hist. Nat. Lib. X. cap. xxii.
"Of the Goose kind there are Penelopes and also Chenalopeces, the latter generally smaller than a Goose; and Britain knows no richer feast than these."

The second runs:—

"Of the Goose kind are Chenalopeces and Che-nerotes, Britain knows no richer feast than these."

To me the latter reading most approves itself, for it both makes us richer by one bird, and the Penelopes seem to our learned men to be of the Duck tribe rather than of the Goose. But I will try to say what these birds are and by what names they go among our countrymen. The Chenalopex\(^1\) takes its name from the Goose and the Fox, while it is called by Gaza Vulpanser in Latin, though our people nowadays name it Bergander\(^2\). It is longer than a Duck and bigger, with a ruddy breast. It lives upon the waters and in coneys' burrows. At times it even nests in holes of lofty rocks (whence possibly the name was first allotted to it by our ancestors the Anglo-Saxons). I have nowhere else seen the Vulpanser save upon the river Thames. Nevertheless they say that it is plentiful upon the isle which is called Tenia\(^3\), and that it breeds in coneys' burrows there. In habits it is very like a Fox, for, while the young are still of tender age, should any one attempt to capture them, the old Vulpanser rolls upon the ground before his very feet\(^4\), as if she could be taken there and then, and thus allures the man to follow her, until the young are able to escape; then she flies off and summons back her brood. I think that there are very few men now who know what sort of birds the

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1 Turner's bird was undoubtedly the Sheld-Drake (*Tadorna cornuta*), notwithstanding the fact that the name *Chenalopex* has been conferred on the so-called 'Fox-Goose' of Africa.

2 The Sheld-Drake is still the Bargander or Bergander of some districts of England; possibly the correct spelling should be Burgander, i.e. Burrow Duck. The word seems to have nothing to do with Berg = a mountain.

3 Possibly St Mary's, or even Coquet Island.

4 The Sheld-Drake does not usually behave thus.
ego, licet Britannus, chenerotes nostrof satis noui: nā præter duo Aristot. genera, anserû adhuc duo genera noui in Britanía, ad quorū neutrum si chenerotes per-
tineāt, chenerotes mihi penitus ignotos esse ingenuē fa-
tebor. Prior anser à nofris hodie brāta & bernicla
nocatur, & fero ansere minor est, pećlore aliquō usq;
[p. 24] nigro. Cætero cinerio, anserum ferorū more volat,
șrept, paludes frequētat, & fegetē depopulatur. Caro
huius paulō infuauior est, & diuītibus minus appe-
tita. Nidum berniclæ, aut ouum nemo uidit: nec
mirum, quum fine parentis opera berniclæ ad hunc
modū spontaneam habeāt generationē. Quum ad cer-
tum tempus, malus nauis in mari cōputruit, aut tabula,
aut antenne abiegnæ, inde in Principio ueluti fungi
erumpūt: in quibus temporis progressu, manifestas
auiū figuras cernere licebit, deinde pluma ueslitas,
pōfiremō uius & volantes. Hoc, ne cui fabulosum
effe uidēatur, præter cómune omniū gentiū littoraliū
Angliae, Hiberniæ & Scotiæ, testimoniū Gymaldus ille
praclarus historiographus qui multō feliciūs ā pro
fuo tempore Hiberniæ historiam conscripsit, nō aliam
effe berniclarū generationē testatur. Sed, quum vulgo
non fatis tutū uideretur fidere, et Gymaldo ob rei rari-
tatem non fatis crederem, dum hæc, quæ nunc scribo,
meditarer, uirum quendam, cuius mihi perspecēssima
integritas fidem merebatur, professione Theologum, na-
tione Hibernum, nomine Octauianū, consului num
Gymaldum hac in re fide dignum cenferet? qui per
ipsum iurans, quod profitebatur evangēlium, respondit,
nerissimum esse, quod de generatione huius auis Gym-
[p. 25] raldus tradidit, seq; rudes adhuc aues oculus uidisse, &
manibus contraclasse: breuiū; si Londini mensem unum
aut alterum manerem, aliquot rudes ausculas mihi
adueelas curaturū. Ista berniclæ generatio nō usq; adeo
Anser

27

Chenerotes are. And, though I am a Briton, I am not quite sure about our Chenerotes; for as yet, apart from the two kinds that Aristotle gives, I know two sorts of Geese in Britain and will frankly own that, if the Chenerotes are not to belong to either of them, they are quite unknown to me. The first Goose by our people nowadays is called the Brant and Bernicle, and is a smaller bird than the Wild Goose, with the breast partly black. The rest is ashen grey. It flies, gabbles, haunts swamps, and devastates green crops, like the Wild Goose. Its flesh is somewhat strong, and is the less sought after by the rich. No one has seen the Bernicle's nest or egg, nor is this wonderful, since Bernicles without a parent's aid are said to have spontaneous generation in this way: When after a certain time the firwood masts or planks or yard-arms of a ship have rotted on the sea, then fungi, as it were, break out upon them first, in which course of time one may discern evident forms of birds, which afterwards are clothed with feathers, and at last become alive and fly. Now lest this should seem fabulous to anyone, besides the common evidence of all the long-shore men of England, Ireland, and Scotland, that renowned historian Gyraldus¹, who composed a history of Ireland in much more happy style than could have been expected in his time, bears witness that the generation of the Bernicles is none other than this. But inasmuch as it seemed hardly safe to trust the vulgar and by reason of the rarity of the thing I did not quite credit Gyraldus, while I thought on this, of which I now am writing, I took counsel of a certain man, whose upright conduct, often proved by me, had justified my trust, a theologian by profession and an Irishman by birth, Octavian by name, whether he thought Gyraldus worthy of belief in this affair. Who, taking oath upon the very Gospel which he taught, answered that what Gyraldus had reported of the generation of this bird was absolutely true, and that with his own eyes he had beheld young, as yet but rudely formed, and also handled them, and, if I were to stay in London for a month or two, that he would take care that some growing chicks should be brought in to me. This curious generation of the Bernicle will not appear so very

¹ Giraldus Cambrensis, Topographia Hibernica Distinctio i. cap. xv.
prodigiosa illis uidebitur, qui quod Aristoteles de oolucre ephemero scripsit, legerint.

De ephemero autem Aristoteles¹ libro quinto de historia animalium ita scribit. Hyppanis fluuius apud Cymerium Bosphorum sub folfitio, defert ueluti folliculos acinis maiores, quibus quadrupedes uolucres erumpunt: quod genus animalis in postmeridianum² usque diei tempus uiuit & uolat: mox descendente sole, macrefcit & languet³: deinde occidente, moritur, uita non ultra unum diem prouacta: unde ephemerum, id est, diarium⁴ appellatum est. Hec Aristotel.

Quæ si uera sunt, & tāto philosopho digna, superioris suis generationi non parum fidei adstruent.

Alter anfer, de quo promissi me dicitur, marina suis est, ex uenatu piscean uiulitans, magnitudine superiore alius paulo minor: alius tamen uoce & forma per omnia refert, nidulatur in mari Scotico, in rupibus excelsis, insuiae Bassi, per antiphraσim, opinor, dictae: nec alias uspiam in tota Britannia. Hic tanto amore suis pullos prosequitur, ut cum pueris per funes in coribus ad auferedos eos demissis, acerrime non fine uitae periculo conflictet. Nec silentio praeterendum est, ex adipe huius alius (est enim insigniter adiposus) unguentum à Scotis ad multos morbos utilissimum fieri, quod cum commageno à Plinio⁵ celebrato, meritò bonitate & remediorum numero poteſt certare. Iam quī alius ephemera genera, licet diligentissime inquirēs, apud Britannos plura inuenire non poſsim, chenerotes

¹ Bk v. 107.
² μέχρι δεκαετῶν.
³ These two words are not in the original Greek.
⁴ This explanation is not given by Aristotle. We have here an instance of the insertions common in old authors, which will not be noticed hereafter in each case, as being too numerous. Another instance is found with regard to 'Albicilla' (p. 30).
⁵ Hist. Nat. Lib. x. cap. xxii.
marvellous to those who may have read what Aristotle wrote about the flying creature called Ephemerus. Now Aristotle writes thus of the Ephemerus in the fifth book of his History of Animals:—

"The river Hyppanis\(^1\), near the Cymerian Bosphorus\(^2\) when the solstice is nigh, brings down small pouches, as it were, each larger than a grape, from which four-footed flying creatures burst; a sort of animal which lives and flies until the afternoon of the same day, but presently at the sun's going down withers and languishes, and finally, at the sun's setting, dies, lasting no longer than a single day, whence it is called Ephemerus, that is, the creature of a day." Thus Aristotle writes.

Now if these things are true, and worthy of the great philosopher, they will impart no little credibility as to the generation of the aforesaid bird.

The second Goose, of which I promised I would speak, is a sea-bird, which lives by hunting fishes, somewhat less in size than the Goose given above; and yet in voice and aspect it recalls the Goose in every way; it nests within the Scottish sea, upon the lofty cliffs of the Bass Isle—so called, as I opine, by an antiphrosis\(^3\)—and nowhere else in all Britain. This bird looks to its young with so much loving care, that it will fight most gallantly with lads that are let down in baskets by a rope to carry them away, not without danger of its life. Nor must we fail to mention that a salve, most valuable for many a disease, is made by Scots from the fat of this Goose (for it is wonderfully full of fat) which may deservedly rival the Commagenum vaunted much by Pliny, in its virtue and the number of its cures.

Now since, though searching with the greatest care, I cannot find any more kinds of Geese among Britons,

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\(^1\) Now the Bog.
\(^2\) Between the Sea of Azov and the Black Sea.
\(^3\) As if the derivation was from the French *bas* = low.
(qui ab amore mihi nomen habere uidentur), aut berniclae aut Baffani anfere sunt, aut mihi prorsus ignoti.

DE AQUILA.

āetōs, aquila, Anglice an egle, Germanicè ein ârin, oder ein Adler.

ARISTOTELES1.

Aquilærum plura sunt genera. Vnum, quod [p. 27] pigargus ab albicante cauda dicitur, ac si albicillam nomines. gaudet hēc planis, & lucis et oppidis. Hinnularia2 à nonnullis uocata cognomine est. montes etiam, syluamũ, fuis freta uiribus, petit. reliqua genera rarò plana & lucos adeunt.

Pygargus, quum sit primum aquilarum genus, Germanorum litteratores turpiter errant, qui pygargum suum trappum faciunt, qui apud Aristotlem tetrix, & Plinio tetrao est, ut poslea docebo. Pygargus Anglo-rum lingua, nisi fallar, erna uocatur.

DE PLANGA AUT CLANGA EX ARISTOTELE3.

Alterum genus magnitudine secundum & uiribus, clanga4 aut planga nomine, saltus & conualles, & lacus incolere solitum, cognomine anataria5, & morphna, à macula pennũ, quafi neuiã6 dixeris, cuius etiam meminit Homer. in exitu Priami7.

[p. 28] PLINIUS8 DE MORPHNA SIVE PLANGA.

Morphnos, quam Homerus & percnon uocat, aliQUI & plancum & anatariã, fecũda magnitu-

1 Hist. An. Bk IX. 111. 2 νεβρωφόνον = fawn-slayer.
3 Hist. An. Bk IX. 112. 4 For πλάγγος some texts have πλάνος. The word ‘clanga’ does not seem to be represented in the Greek.
5 νηρτωφόνος = duck-slayer.
6 This explanation is not in Aristotle.
7 Iliad, Bk XXIV. l. 316. 8 Hist. Nat. Lib. x. cap. iii.
the Chenerotes (which seem to me to get their name from "love") are either Bernicles, or the Geese of the Bass, or are decidedly unknown to me.

**Of the Aquila.**

ἀετός, aquila, in English an eagle, in German ein ärn, or ein adler.

**Aristotle.**

Of Aquilæ there are several kinds. One which is called Pygargus from its whitish tail, as though you were to name it Albicilla, loves plains, groves, and towns. For by-name it is called by certain Hinnularia. It even seeks the mountains and the wood, relying on its might. The other kinds seldom approach the plains and groves.

Now, seeing that Pygargus is the first kind of the Aquilæ, the German scribblers err disgracefully, who reckon it their Trapp, which is the Tetrix in the works of Aristotle and the Tetrao of Pliny, as I shall shew afterwards. Pygargus, if I err not, in the English tongue is called an Erne.

**Of the Planga or Clanga, from Aristotle.**

Another kind, second in size and strength, by name Clanga or Planga, generally haunts glades and valleys and lakes. It has the by-name Anataria, and Morphna from the marking on the wing, as though you should say spotted. Of this Homer makes mention in the scene of Priam's death.

**Pliny on the Morphna or Planga.**

Morphnos, which Homer also calls Percnos, some name Plancus and Anataria, second in size and

1 A very doubtful derivation.
Aquila


Omnia, quæ Aristoteles & Plinius perorno haélenus tribuerunt, Anglorum balbushardo conueniunt, si solam magnitudinem exceperis, quæ fì alia adfuerint, hic fortassī non oberit. est autem illa, quam anatariam esse conijcio, auis buteone maior & longior, neuo albo in capite, colore fusco proximo, ad ripas fluminum, flagnorum et paludium semper degens, uiuit ex uenatu anatum et gallinarum nigrorum, quas Angli coutas nomināt. Venationem hanc, cuius meminit Plinius, inter aœilam istam (fì aœilà dicenda sit) & aues aquaticas, non solūm ego sæpissimē uidi, sed infiniti apud Anglos quotidie uident. Si qua terræ portiuncula fuper aquas inter arundineta emineat, in hæ solet nidum facere, ut quoniam uolatu non admodum ualet, à præda non procul abst. Aues subitō adoritur, & sic capit. Cuniculos ista interdum etiam dilaniat. Nunc an ista anataria sit nec ne, doclis uiris iudicandum propono.
strength; it passes its life round lakes. By pools it chases water-birds, which dive from time to time, until it catches them sleepy and weary. The contest is a sight to see, the quarry seeking refuge on the shore, chiefly where reeds are thick, and thence the Aquila drives it away with a stroke of the wing and plunges in the lake as it swoops from above, shewing its shadow to the bird as it swims under water from the shore. Again the latter tries a different place and comes up where it thinks that it will least be marked. This is the cause of birds swimming in flocks, for they are not molested when in companies, and blind their enemy by splashing with their wings. The Aquilæ themselves, moreover, often are immersed, not being able to support the weight that they have clutched. Thus Pliny.

All things that Aristotle and Pliny have attributed to the bird Percnos so far well agree with the Balbushard of the English, if one may except its size alone, and if the rest be present, that perhaps should not stand in the way. Now the bird which I apprehend to be the Anataria, being bigger and longer than the Buteo, with a white patch upon the head, and nearly fuscous in colour, always haunts the banks of rivers, pools, and swamps; it lives by hunting Ducks and those black fowls which Englishmen call Couts. The conflict of which Pliny makes mention above between this Eagle (if it should be called an Eagle) and the water-birds I have seen often, and not I alone, but countless Englishmen witness it daily. If anywhere a little space of ground rises among the reed-beds, there the bird is wont to make a nest, that, since in power of flight it is not very strong, it may not be far distant from its prey. It suddenly attacks birds, and thus takes them. It also sometimes butchers coneys. Now whether this may be the Anataria or not I put it to the learned to decide.

1 The Bald-Buzzard or Marsh-Harrier (*Circus aeruginosus*).
DE TERTIO GENERE EX ARISTOTELE.¹


LINIUS³.

Melænaētos. Melænaētos à Græcis dīcta, eademφ ualeria, minima magnitudine, uiribus prācipua, colore nigrīcans: fola aquilarum fētus fuōs alit, cāterē fugant: fola fine clangore, fine murmuratione.

DE QUARTO GENERE EX ARISTOT.⁴

Quartum genus percnopterus ab alarum notis, capite albicante, corpore minore, quàm cāterē adhuc dīcta, hāc eft. Sed breuioribus alis, cauda longiore, uulturis speciem hēc refert. Subaquīla⁵, & aquīla montana cognominatur. In-


DE HALIÆETO.

Haliæetus Græcè & Latinè, Anglice an osprey, Germanicè eyn viðhārn.

² Aristotle has merely: καλεῖται δὲ μελανάετος καὶ λαγωφόνοις.
³ Hist. Nat. Lib. x. cap. iii.
⁴ Hist. An. Bk IX. 114; a very free version.
⁵ Some texts read γυπαίετος for ὑπαίετος.
⁶ Lege 'exanimata.' Aristotle has τὰ τεβνεῶτα φῆρων.
Of the third kind from Aristotle.

The third kind in colour is blackish, whence it has received its name, so that the bird is called Pulla and Fulvia, in size the least of all and yet chiefest in strength. It haunts mountains and woods, and is called also Leporaria.

Pliny.

The bird called Melænaetos among the Greeks, which is the same as the Valeria, is very small in size, but chief in strength, in colour blackish: of the Aquilæ this kind alone fosters its young, the others drive them off: it is the only one without a scream, without a softer note.

Of the fourth kind from Aristotle.

The fourth kind, called Percnopterus, from having spots upon the wings, is whitish on the head; it has a smaller body than the other sorts spoken of hitherto. But with its shorter wings and longer tail it has the aspect of a Vulture. It is called besides Subaquila and Mountain Aquila. It dwells in woodlands, an ignoble bird, not lacking the bad qualities of others, but void of the good that they possess. For it is beaten, put to flight, and caught by the Raven and by other birds like that. Further it is unwieldy, sluggish to get food, and carries off dead bodies; it is always ravenous and querulous; it cries continually and screams.

Of the Haliaeetus.

Haliaeetus in Greek and Latin, in English an Osprey, in German eyn vishärn.
Haliaetus—Aquila—Ardea

Plinius

Superefst Haliaetus, clarissima oculorum acie, librans ex alto fese uisof in mari pisce, præceps in eù ruens, & discussis pectore aquis rapiens.

Aristoteles


Haliaetos apud Anglos hodie notior est, quàm multi neint, qui in uinarijs pisces alunt: nam pisces omnes breui tempore aufert. Piscatores nostrates escis fallendis píciibus destinatis, hálæetí adípem illínt, aut immíscént, putantes hoc argumento eíciam efficacióre futuram, quòd haíæetí fese in aère libráte, pisces quót quot subsunt (natura aquilæ ad hoc cogente, ut creditur) fese reflexínt, & uétres albícantes, ut quem liberet, eligeret, exhibéat.

De aquila vera ex Aristotele


De Ardea

éphóios, ardea, Anglice an heron. Germanicè éyn repper.

1 Hist. Nat. Lib. x. cap. iii.
4 Gaza translates φόνι by ossifraga, but it is very doubtful what bird the ossifraga really was. Possibly it should be identified with the Lämmergeier (cf. Prof. Newton, Dict. Birds, p. 660).
Pliny.

The Haliaeetus remains, with eyesight of the keenest, poising itself aloft when it spies fishes in the sea below, then dashing headlong on them and securing them, the waters being parted by its breast.

Aristotle.

The Haliæetos, that is to say Sea Eagle, has the neck both big and thick, bowed wings, and a broad tail. It bides upon the sea-coast and the shores. It often happens, when it cannot lift what it has taken, that it is submerged beneath the tide.

The Osprey is a bird much better known to-day to Englishmen than many who keep fish in stews would wish; for within a short time it bears off every fish. Our anglers smear or mix their bait with Osprey's fat, arguing that thus the bait will prove more efficacious from the fact that, when the Osprey hovers in the air, whatever fishes be below turn up and shew their whitish bellies (as it is believed, the nature of the Aquila compelling them to this), that it may choose that one which it prefers.

Of the true Aquila from Aristotle.

The sixth kind men call Genuine, or true and thoroughbred. Of all the various kinds of Aquilæ this is the only one that is believed to be of true and unstained origin. This is the largest of all Aquilæ and bigger even than the Ossifrage, for it surpasses by one half as much the other Aquilæ; in colour it is reddish brown, but it is rarely seen.

Of the Ardea.

ερωδιός, ardea, in English a heron, in German eyn reyger.

Pella apud Anglos in excelsis arboribus, nö procul à ripis fluminum crescentibus nidum facit. Superior pars corporis cyanea est, inferior autem nönihil candicat, uentris excremetis liquidioribus inaudentes se jubiò aqulas, aut accipitres abigit, & se ita defendit. Vidi & huins generis, licet raras, albas, quæ neque corporis magnitudine, neque figura, sed solo colore, à superiore distulerunt. Vixa est etiam alba cum cyanea apud Anglos nidulari, & prolem gignere. Quare eiusdem esse speciei, fatis constat. Albardeolam, quæ Græcè λευκερωδιός dicitur, semel tantùm in Italia uidi, pella multò minor est, & hominis conspectu no perinde atq: cærulea fugit. Hac si nö uidiissim, Anglorù shoue-

1 Hist. An. Bk IX. 19.
2 Hist. An. Bk IX. 93.
3 Aristotle's word is ἐπαγγείλει, which Sundevall renders by the Swedish equivalent of 'forages round the fields.'
4 Hist. An. Bk IX. 94.
5 This seems to mean that the φόβου ειτς other creatures' eyes, for Aristotle says: μάλιστα γαρ ἐστιν ὑφαλμαθόρος τῶν ὀρνιθῶν.
Of Ardeaé there are three kinds, Pella, Alba, and Stellaris, but the last has the by-name of Piger. The coupling of Pella is difficult, for it screams while it couples and (they say) emits blood from its eyes: it also brings forth painfully and with extreme distress. The Pella is sagacious, quick at getting food, and always busy. It is wont to be astir by day; yet it is mean in colour, with the belly wet. Of the remaining two the Alba, fair of colour, couples, nests and brings forth well; it feeds in marshes, on a lake, in fields and meadow-ground. But the Stellaris, by-named Lazy (in the fable it is said of old to have been changed from a slave to a bird), as its by-name imports, is slow and indolent. The bird called Phoix has beyond all others this peculiarity that it especially attacks the eyes. The Ardea and the Albardeola, which is of smaller size and has a broad and elongated bill, seek lakes and rivers.

The Pella builds its nest in England on the lofty trees that grow not far from the banks of streams. The upper part of the body is blue, the lower is, however, somewhat white. It routs Eagles or Hawks, if they attack it suddenly, by very liquid mutings of the belly, and thereby defends itself. Of this kind I have seen some white, though they are rare, which differed from the aforesaid neither in their size nor shape of body, but in colour only. Furthermore the white has been observed in England to nest with the blue, and to bear offspring: Wherefore it is clear that they are of one species. I have only once seen—and that was in Italy—the Albardeola, which is called λευκεροδίος in Greek; it is much smaller than the Pella and by no means shuns the sight of man so much as does the blue. Had I not seen it, I should have declared the Albardeola to be the English

1 That is, for its young.
lardam albardeola esse indicassem. Stellaris est, quâ Angli buttourum, aut buttourum, & Germani pittourum & rosodommium nominant: nam ausis est toto corporis habitu ardeis reliquis similis, ex pisçium nusatu ad ripas paludium & amnium uinens, pigerrima & solido-dissa, ut quâ in reitia ab equo faciliçio agi poteß facilimè. Colore est ferè, quantum memini, phasiani, rostro lino indito, aßininos ronchos uoce referti: oclos hominum auidissimè omnium auium appetit. Quare si quid impediat, quô minus stellaris esse possit, (quod mihi nondum cernere datum est) phoica esse oportebit, quam Arifloteles oculos maximè appetere teßatur, quamquam & cæteræ ardead idem facere seëp uisse sunt.

DE AVRIVITTE.

Χρυσομίτρις, nò ut quidam codices habent, ρυσομίτρις, aurivittis, Anglice a gold finche, Germanice eun distelstind, über eun stigéliç.

Auriuittis. Auriuittis una est ex auiculis, quæ carduorum femine uiclitant, & hermes etiam oblata, non attingunt. Aßi goldsïncam, aut disteluincam, spinam, alij carduellem esse volunt. Sed si quis, ex spiniuoris prater hanc aliam aurea utta re-dimitam osfèderit, cui magis aurivittis nomen competat, quàm huic, opinionem meam facilè patriar explodi, alioqui non uideo, quin digna sit, quæ probetur.

DE ATTAGENE.

Ατταγην, ἀττάγας, attagen, attagena. Attagen, ut scribit Arifloteles, gallinagini similis est colore. Attagenam uarijs dîsincliëm esse maculis, Ariflophanes 2 his uerfibus teßatur:

Si quis ex uobis erit fugitiuus atq; uibus notis, Attagen fanè apud nos uariis appelabantur.

1 Aristotle’s groups of Birds are as follows: (1) γαυμφώνυκες (crooked-clawed); (2) σκωληκοφάγα (worm-eating); (3) ἀκανθοφάγα (eating thistle seeds); (4) σκιποφάγα (?grub-eating); (5) πεποτερεθεί (dove-like); (6) σχιξόπταδα (cleft-footed); (7) στεγανόπταδα (wholly webbed); (8) βαρέα (heavy, i.e. ground kinds). A few Birds, however, can hardly be placed under any of these.

2 Aves, II. 761 — 762.
Ardea—Aurivittis—Attagen

Shovelard¹. Stellaris is that kind which Englishmen denominate buttour or bittour, and the Germans call pittour or rosdom. Now it is a bird like other Herons in its state of body generally, living by hunting fishes on the banks of swamps and rivers, very sluggish and most stupid, so that it can very easily be driven into nets by the use of a stalking horse. So far as I remember, it is nearly of the colour of a Pheasant, and the beak is smeared with mud; it utters brayings like those of an ass. Of all birds it aims at mens' eyes most readily. Wherefore if anything hinders this kind from being the Stellaris (which is not yet given to me to see) it ought to be the Phoix, inasmuch as Aristotle testifies that it aims chiefly at the eyes, though other Ardeaæ also often seem to do the same.

OF THE AURIVITTIS.

Χρυσόμιτρις (not as some texts have it ῥυσομῆτρης), aurivittis, in English a gold finche, in German eyn distelfinck or eyn stigelitz.

The Aurivittis is one of the small birds that feed on seeds of thistles, and do not touch worms even when offered to them. Some will have it that the Goldfinch or the Distelfinc is but the Spinus², some the Carduelis. But if anyone can shew another of the thistle-eating birds save this, girt with a golden band, to which the name of Aurivittis is more fitting than to this, I gladly will allow my opinion to be ignored, but otherwise, I do not see why it should not be worthy of approval.

OF THE ATTAGEN.

'Ατταγὴν, ἀττάγας, attagen, attagena.

The Attagen, as Aristotle writes, is like the Gallinago in colour. And Aristophanes bears witness in these lines that the Attagena is marked with varied spots:—

“If any of you be a runaway and branded with the marks, he shall assuredly be called with us the spotted Attagen.”

¹ That is, the Spoonbill of modern books (Platalea leucorodia), while the buttour is of course the Bittern (Botaurus stellaris)
² Turner himself considered Spinus to be the Greenfinch (cf. p. 85 of the original).
Plinius¹ de attagene.

Attagen maximè Ionius celebratur, uocalis aliàs, captus uerò obmutesceit, quondam existimatus inter raras aues. Iam & in Gallia Hispalia capitur, & per alpes.

Petrus Gyllius².

Attagen, est perdice paulò maior, uericoloribus picta plumis in dorso, & color ruffus est, uescitur grano, breuibus est alis, & puluera-tor est.

Falluntur igitur Britannici ludimagistri, qui suù Wodococcum attagenem faciunt, qui folis uescitur uermibus, & grana nunquam attingit. An attagenes apud Anglos innueniantur nec'ne, multum fanè ambigo. nam qui attagenem describunt, marem à fæmina non sepa-rant. unde colligo eundem fuisse colorem, & eandem figuram maris & fæminae. Cæterum in hoc auium genere, quod apud nos ad attagenis formam proximè accedit, mas à fæmina ita differt ut duorum generû ißiusmodi rerû inperito uideri possint. Vtrunque tamen auem describam.

Mas gallo doméstico paulò minor, totus niger est, excepta ea parte caudæ, quæ podicem tegit, ea enim alba est. Cæterû nigredo huius nonnihil splendescit, ad eum ferè modum, quo columborum nigrorum torques circa colla splendescunt. ad utriditatem igitur proximè acc-cedit. in capite rubrum quendam habet, fed carneum cirrû, & circa genas duos habet ueluti lobos rubros, & eos carneos. Fæmina tota maculis distincta est, & à perdice, nisi maior esset, & ruffa magis, aèrè dignosci.

¹ Hist. Nat. Lib. x. cap. xlviìii.
² Petrus Gyllius was the author of the work De vi et natura Animalium etc. Lugd. Bat. 1533.
Attagen

Pliny of the Attagen.

The Attagen is most renowned as an Ionian bird; it usually is noisy, in captivity however it is dumb. In former times it was considered rare, but now it is taken in Gaul, in Spain, and on the Alps.

Petrus Gyllius.

The Attagen is rather larger than the Perdix, and is marked with particoloured feathers on the back, in colour it is reddish, and it feeds on grain. It has short wings, and rolls itself in dust.

Accordingly our British schoolmasters are wrong who make their Woodcock the Attagen, which liyes only on worms and never touches grain. Indeed I seriously doubt whether Attagenes be found in England or not, for those who give descriptions of the Attagen, do not distinguish the male from the female, whence I infer that they have the same colours and are like in form. But in the kind of bird which with us comes the nearest to the Attagen in form, the male differs so greatly from the female that they might appear to be of separate kinds to the man inexperienced in things like this. Nevertheless I will describe each bird.

The male\(^1\) is somewhat less than a domestic cock and is entirely black, save that part of the tail which overlies the vent, for that is white. Moreover the black colour of the bird is somewhat glossy, very nearly as the collar round the neck of our black pigeons is. So it approaches very near to green. Upon its head it has a red but fleshy sort of comb\(^2\), and round its cheeks two red lobes as it were and those fleshy. The hen is wholly marked with spots, and, were she not a bigger bird and more rufous, could scarcely be distinguished from a Partridge. Both frequent

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\(^1\) Turner here undoubtedly refers to the Blackcock (*Tetrao tetrix*).

\(^2\) The Blackcock has two erectile patches of red skin over the eyes, which in the breeding season even reach above the top of the head; and the word 'cirrum' must be taken to mean such a patch here.
Attagen—Atricapilla


DE ATRICAPILLA.

Μελανκόρνυφος, atricapilla, Germa. ut creditur, eun grafinusten.

Aristoteles¹.


waste open places, and especially those covered with heather. They feed on grain and on the topmost buds of heather. They have short wings and take short flights. This bird, if it be not the Attagen, appears to be Varro's Gallina rustica. Erasmus in his proverb of "the Attagena's new-moon" makes his Attagena a marsh-bird, marked with varied spots. If this approved itself sufficiently to me I confidently would venture to affirm that the Attagena was what the English call the Godwitt or Fedoa. Furthermore the bird is so much like the Woodcock, that, if it were not a little larger, and did not the breast verge upon ash-colour, the one of them could hardly be distinguished from the other. It is found in marshy places and on river banks. The beak is long; but in captivity it feeds on wheat, just as our Pigeons do. With us it sells for thrice as much again as any Woodcock, so much does its flesh tickle the palates of our magnates. Of these two, if neither be the Attagena, then I have nowhere seen the Attagena.

OF THE ATRICAPILLA.

Μελαγκόρυφος, atricapilla, in German, as is supposed, eyn grasmuklen.

ARISTOTLE.

The Atricapilla, as some report, lays the most eggs of all, next to the Struthio of Africa. No fewer than seventeen eggs of the Atricapilla have been found, but it lays even more than twenty and, as some narrate, in number always odd. It also nests in trees and feeds upon small worms. It is peculiar to this and the Luscinia beyond all other birds that they have no point to the tip of the tongue. Ficedulæ and Atricapillae change in turn. For when autumn sets in the bird becomes a Ficedula, from autumn onwards it becomes an Atricapilla, nor is

1 See Prof. Newton's *Dict. Birds*, p. 248.
Atricapilla—Bubo

nec inter eas discrimen aliquod, nisi coloris & uocis est. Auem esse eandem cōfたat, quia dum immutaretur hoc genus, utrūque conspectum est, nondum absoluto mutatum, nec alterutrum adhuc proprium ullum habens appellationis. Hāc Aristoteles.

Atricapillum in Anglia nunquam uidi, nec saépius in uita quàm semel, idē in Italia in domo Ducis Ferraienīs. Eamū mihi utriusq; linguae nō vulgariter doctus, D. Franciscus, duci à facris concionibus exhibuit. Anglorū lingetūae, & Germanorum grafnuscho, quod ad corporis magnitudinem attinet, similis erat: sed atrum habebat caput, & reliquum corporis colorum magis ad cinerium uergentem.

[p. 40]

DE BVBONE.

Būas², bubo, Anglice, alyke foule, Germanicè eyn schussauf / eyn schüssel / eyn fauß.

ARISTOTELES³.

Bubo è noctuarum genere est, & noctuæ specie quidem similis, sed magnitudine non minor quàm aquila.

PLINIUS⁴.

Bubo funebris, & maximē abominatus, publicis præcipuē auspicijs, deserta incolit, nec tantum defolata, sed etiam inaccesa: noctis monstrum, nec cantu aliquo uocalis, sed gemitu. Volat nūquam quō libuit, sed transfuerfus auferitur. Hec Plinius.

Hanc auem semel Venetijs insita aquilæ magnitudine uidi, sed crura erant paulò breuiora quàm aquilæ crura solent esse. Cetera aquilæ similis erat.

¹ Aristotle has ἐκατέρω ὑδών τι ὕπηρκεν οὐδὲν according to one text. He has no word to represent 'appellationis.'
² Or Bρῶς.
⁴ Hist. Nat. Lib. x. cap. xii.
there any difference between the two, save that of colour and of voice. That the bird is the same is evident, since, while this kind is undergoing the change, each of the two is seen, not fully changed as yet, and neither having so far any proper name. Thus far Aristotle.

In England I have never seen the Atricapilla, nor yet but once in life, and that in Italy within the house of the Duke of Ferrara. And Don Francisco of the Holy Council of the Duke, a man uncommonly well versed in both the tongues, shewed it to me himself. The bird was like the English lingett and the German grasmuschen, so far as size of body went; but it had a black head, and the remaining colour of its body verging more to grey.

OF THE BUBO.

Bōs, bubo, in English alyke foule, in German eyn schuf-fauss (eyn schüffel), eyn kautz.

ARISTOTLE.

The Bubo is of the race of Noctuae, and is in aspect very like a Noctua, but not less than an Aquila in size.

PLINY.

The Bubo is a fatal bird, of evil omen beyond other sorts, especially at public auguries; it lives in desert places, and not merely those that are un-peopled, but those also hard of access: monster of the night it utters not a song, but only a groan. It never flies where it intends, but is borne off aslant. So Pliny says.

This bird I saw at Venice once, of a full Eagle's size, its legs, however, were a little shorter than an Eagle's legs are wont to be. But it was like an Eagle otherwise.

1 Turner probably meant the Eagle Owl (Bubo ignavus).
Bosca—Caprimulgus

DE BOSCA.

Bosca, auis est aquatica, anati similis, sed minor. Quum multæ sint aues aquaticæ anati similis, sed minores, ut sunt, tela uocata ab Anglis Vuigene & pocharda, eam puto boscam esse, quæ proximè ad magnitudinem & similitudinem anatis accedit. Hoc quum pocharda faciat, illum Aristotelis esse boscam iudico.

DE CAPRIMVLGO.

Caprimulgus, alγοθήκας.

Aristoteles¹.

Caprimulgus, auis est montana, magnitudine paulò maior, quàm merula, minor quàm cuculus, moribus mollior. Parit duo oua, aut tria cùm plurima. Sugit, caprarum ubera aduolans, unde nomen acceptit. Cùm uber fuxerit, extingui, capram excæcari aiunt, parum clarè interdiu uidet, sed noctu perśpicax.

Plinius².

Caprimulgi appellantur grandiores merulæ aspectu, fures nocturni, interdiu etiam uifu carent.

Cum essem apud Heluetios, semem quendam confpicatus, capras pascentem in montibus, quos herbas quærendi gratia ascenderam, rogabam num aem no- uisset merulæ magnitudine, interdiu cæcam, noctu perśpicacem, quæ caprarum ubera noctu fugere solet, unde capræ pastica cæca euadunt? qui respòdid, fe in Heluetiorum montibus ante quatuordecim annos, multis uidißè, & multas iniurias ab ipsis passum, ut qui stemel

Of the Bosca.

The Bosca is a water fowl, like to a Duck, but smaller. Since there are many water fowls like to the Duck, but smaller (as there surely are), called Teles, Wigenes and Pochards by the English, I believe the Bosca to be that which comes nearest the size and likeness of a Duck. And since the Pochard does so, I decide that it is Aristotle's Bosca.

Of the Caprimulgus.

Caprimulgus, αἰγοθήλας.

Aristotle.

The Caprimulgus is a mountain bird, in size a little bigger than the Merula, less than the Cuculus; in disposition it is milder. It lays two eggs or three at most. Flying to the udders of she-goats, it sucks them, and thus gets its name. They say that the udder withers when it has sucked at it, and that the goat goes blind. By day the bird sees dimly, but quite well at night.

Pliny.

Caprimulgi, as they are called, look bigger than a Merula, and act as thieves by night; by day they even lack the power of sight.

When I was in Switzerland I saw an aged man, who fed his goats upon the mountains, which I had gone up intent on search of plants: I asked him whether he knew a bird of the size of a Merula, blind in the day-time, keen of sight at night, which in the dark is wont to suck goats' udders, so that afterwards the animals go blind. Now he replied that he himself had seen many in the Swiss mountains fourteen years before, that he had suffered many losses from those very

1 That is, the Wild Duck (Anas boschas).
2 This rendering appears much preferable to translating this word 'the goat dies,' as, judging from the punctuation, some would have it.
Caprimulgus—Carduelis

sex capellas à caprimulgo occæcatas habuerat. cæterù nùc omnes ad unum ab Helvetijs usque ad inferiores Germanos, ubi hodie non folium capras laele priuant & occæcant, sed & ouses infuper occidunt, auolasse. Nomen auis quærenti, paphum, id est, facerdotem dici respödit. Sed uestulus ille mecum fortè iocatus est. Ego uestò, siue iocatus fuerit, siue seriò locutus, aliud Germanicù caprimulgi nomen quâ quod me docuit iste, non teneo. Si qui sint, qui melius & aptius nomen in pròptu habeant, proferant.

DE CARDVELE.


Prater auiculam illam spiniuoram aurea uitta redimitam, aliam noui spiniuoram colore uiridem, quæ non fecus atq; auriiuittis rostro è duabus fitulis uicissim ascendentibus & descendentibus, cibum ex una, & potü ex altera desunt. Quin & hoc facit miliaria, quam linotam nofrates appellant. Eadè quòq; hominè quiduis cātante, uoce imitatur. Quare nò sola illa, quæ Græcè òpævòls, & Latinè Theodoro carduelis dicitur, imperata facit, & rostro & pedibus pro manibus utitur.

Dicitu mihi difficile uidetur, quam'nam è tribus, quum omnes illæ carduorum femine uescantur, Plinius carduelem fecerit, nù thraupin aut acainthin, aut chry-

¹ Hist. Nat. Lib. X. cap. xlii.
birds; so that he had once had six she-goats blinded by Caprimulgi, but that one and all they now had flown away from Switzerland to Lower Germany, where nowadays they did not only steal the milk of she-goats, making them go blind, but killed the sheep besides. And, on my asking the bird’s name, he said that it was called the Paphus, otherwise the Priest. But possibly that aged man was jesting with me. Yet whether he was jesting, or spoke gravely, still I have no other German name than what he gave to me for Caprimulagus. If there be any then who have in readiness a better or a fitter name than this, let them produce it.

OF THE CARDUELIS.

The Carduelis, if we believe Gaza, is in Greek called \( \theta \rho α\nuτ\i\i\s\). Aristotle also numbers it among small thistle-eaters\(^1\). I find in Aristotle nothing more than this about the Carduelis. Pliny writes that Cardueles, smallest of all birds, perform set tasks, and not in song alone, but with their feet and beak in place of hands.

Besides that thistle-eating little bird\(^2\) adorned with band of gold I know another thistle-eating sort, in colour green\(^3\), which with its beak takes up its food from one of two small buckets moving up and down alternately, its water from the other, as the Aurivittis does. The Miliaria moreover does the same, which bird our countrymen call Linot. Furthermore it mimics with its song a man when singing anything. And so it is not only that one kind, in Greek called \( \theta \rho α\nuτ\i\i\s\) and in Latin named by Theodorus\(^4\) Carduelis that performs the tasks that it is bid, and uses beak and feet in place of hands.

It seems to me then difficult to say, since all three birds feed upon thistle-seeds, which of them Pliny meant by Carduelis, whether it should be the Thraupis, or the Acanthis, or the Chrysomitris. And should it be the Thraupis, as

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1 See p. 35.
2 The Aurivittis, p. 35.
3 Probably Turner means the Siskin (Carduelis spinus).
4 Theodorus Gaza.
Carduelis—Cœruleo—Certhia

fomitrē. Si thraupin, ut Gaea credit, auis illa aureis plumis carduelis non erit: nam illa apud Arisot. non θραυπίς, sed Chrysomitis est. Quae nā igitur auis carduelis sit, non audem pronunciare.

DE CœRVELEONE.

Kvavös, cœruleo, Anglice, a clotburd, a smatche, an arlyng, a steinchek, German. eyn brech vögel.

[p. 44]

ARISTOTELES


Cœruleo, si ea sit auis, quam conijcio esse, in cuniculorum foueis, & sub lapidibus in Anglia nidulatur, & in hyeme non apparēt.

DE CERTHIA.

ARISTOTELES⁴.

Certhia, auicula est exigua, cui mores audaces, domicilium apud arbores, uictus ex coffis, ingenium fagax in uitae officij.

Auis est quodam, quam Angli creperam, id est, reptitattricum nominant, quod super arbores semper repat, quam certhiam esse credo. Ea regulo paulō maior, pectore pallido, cetera fusca & maculis nigris distincta

1 Hist. An. Bk ix. 97.
2 Another reading is Νιμυφφ.
3 μεγαλόπον, but some read μελανόπον.
Gaza believes, that bird with golden feathers will not be the Carduelis, for with Aristotle that is not the θραυντίς, but the Chrysomitris. Therefore I dare not pronounce what bird the Carduelis is.

OF THE ΚӨӨRULEO.

Κυανός, κӨөruleo, in English a clot-burd, a smatche, an arlyng, a steincheck, in German eyn brech vögel.

Aristotle.

The Cœruleo chiefly dwells in Scyros and loves rocks; in size it is a little smaller than a Merula, a little larger than a Fringilla: it has large feet, and climbs on rocks: in colour it is blue: the beak is long and thin: the legs are short as in the Pipo.

The Cœruleo¹, if it be the bird which I conjecture, nests in rabbit holes and under stones in England, and does not appear in winter.

OF THE CERTHIA.

Aristotle.

The Certhia is a very little bird of bold habits; its home is upon trees, its food is grubs; it shews wise instinct for the needs of life.

There is a certain bird which Englishmen call Creeper, that is Climber, for it always climbs about on trees: this I believe to be the Certhia. It is a little bigger than the Regulus, having a whitish breast, the other parts dull brown, but varied with black spots; its note is sharp, its

¹ Whatever bird Aristotle's may be, Turner's is certainly the Wheatear. Belon and Gesner seem to think that the former is the Blue Thrush, but Sundevall is certainly wrong in suggesting that it is the Wall-Creeper (Tichodroma muraria).
[p. 45] est, uoce acuta est, & rostro tenui, & leuiter in fine adunco, nunquam quiescit, sed semper per arbores picorum more scandit, & coffos è corticibus eruens, comedit.

DE CICONIA.

Πελαργός, ciconia, Anglice a f bowel, Germanicè eyn fowel, & Saxonicè eyn beheber.


PLINIUS DE CICONIIS 1.


DE CINCLIO.

Κίγκλος, η σεισοπνύς, Anglice a uwater suuallouu, Germanicè eyn steypblisser.

1 Hist. Nat. Lib. x. cap. xxiiii.
beak is slender and is slightly hooked towards the tip; it never rests, but is for ever climbing up the trunks of trees after the manner of the Woodpeckers, and it eats grubs, picking them from the bark.

**OF THE CICONIA.**

Πελαργός, ciconia, in English a stork, in German eyn storck, and in Saxon eyn ebeher.

The Stork, though one of the best known of birds among the Germans, is to nearly all my countrymen of Britain as unknown as the most unknown bird. And little wonder since a Stork is nowhere to be seen, save as a captive, in our island. With the Germans the bird nests upon roofs or even chimney tops at times. It is a bird of middle size between a Crane and a Heron and distinguished by feathers of black and white: it has long legs and a beak like a Crane’s, but red and stout; it lives near lakes and marshes, eating frogs, toads, snakes and fishes.

**PLINY ON CICONIAE.**

From what parts the Ciconiae may come, or whither they betake themselves, is not yet ascertained. It is indubitable that they come from far in the same manner as the Grues, but the former arrive in winter and the latter in summer. When ready to depart these birds collect at some fixed place, and after gathering, so that none of their tribe, unless a prisoner or a slave, is left behind, they disappear, on an appointed day, as if by law. No one has ever seen the whole array in very act to go, though it may haply shew itself when ready to depart; nor do we view it coming, but when it has come. Both these events take place at night. Ciconiae seek the same nests again, and tend their parents in old age.

**OF THE CINCUS.**

Κύκλος, ἢ σεισοπτυχίς, in English a water swallow, in German eyn steynbisser.
ARISTOTELES

Cinclus ex mari & fluuijs uicit petit. aftutus est, & captu difficilis: sed captus, omnium maximè mitecxit. Lefus hic est, incontinens enim parte fui posteriore.

Auicula, quā ego cinclū esse puto, galerita paulò maior est, colore in tergo nigro, uentre albo, tibijs longis, & rostro neutiquam breui: uere circa ripas [p. 47] fluminum, vālde clamōfa est & querula, breues & crebros facit uolatus.

DE CHALCIDÉ.

ARISTOTELES

Chalcis rarō appareat, montes etenim incolit. nigro colore est, magnitudine accipitris, quem palumarium nominant: forma longa ac tenui, Iones cymindem appellant. cuius Homerus etiam meminit in Iliade cūm dicit:

Chalcida dij perhibens, homines dixere cymindem.

Sunt, qui eandem hanc auē non aliam esse atque ptyngem uelint. Interdui minus apparat, quia non clarē uidet, sed noctu uenatur, more aquilae: pugnat uerō cum aquila adeo acriter, ut fæpius ambae implexae, deferantur in terram, & uiuæ à pastoribus capiantur. Parit hēc oua duo, & faxis spelunctis nidulatur.

1 Hist. An. Bk ix. 76.
3 Iliad, Bk xiv. 1. 291. 'Perhibens' is a misprint for 'perhibent.'
4 Aristotle has not these five words.
The Cinclus seeks its food from the sea and from rivers. It is cunning and is hard to catch, but grows the gentlest of all birds when caught. It is moreover maimed, being without control over its hinder parts.

The little bird which I believe to be the Cinclus\(^1\) is a little bigger than the Galerita, with black colour on the back, and a white belly; while it has long shanks and a bill by no means short: in spring it is exceeding clamorous and querulous about the banks of rivers, where it takes short and incessant flights.

\*[\^{1}: Turner evidently means the Common Sandpiper (\textit{Actitis hypo-leucus}).]

\*[\^{2}: Sundevall says that Külb thought that this bird was the Hawk Owl, but himself refers it doubtfully to the Glossy Ibis (\textit{Plegadis falcinellus}), which however is not a night bird and does not live on hills. Belon and Gaza thought that it was an owl of some kind.]

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The Chalcis is not often seen, for it haunts mountains. It is of a black colour, and of the size of the Accipiter which they name Palumbarius. Its form is long and slender; the Ionians call it Cymindis. Of it furthermore Homer makes mention in the Iliad, wherein he says:

The Gods know it as Chalcis, men say Cymindis.

Some there are who would make this very bird none other than the Ptynx. By day it shews itself but little, since it does not see clearly, although it hunts by night, after the manner of the Aquila; yet with the Aquila so keenly does it strive, that frequently both birds fall to the ground clutching each other, and are caught alive by shepherds. It lays two eggs, and nests in cliffs and caves\(^2\).
DE COLLVRIONE.

Collurio ijfdem, quibus merula uescitur, magnitudo eius eadem quæ superioribus, id est, uireoni & mollicipiti, capitur potius hyberno tempore.

Avis, quam collurionem esse puto, turdum magnitudine æquat, sed caudam habet longiorem, & magis mobilem, & pectus maculosum. In æftate apud nos aut raro aut nunquam uidentur: in hyeme uerò tanta copia est, ut nullius avis maior sit. baccis aquifoliiæ arboris, forbì minima, & jinilium arborum uescitur, gregatim volat, & inter uolandum obstrepera est.

DE COLVMBIS.

Περιστερά, columba, Anglice a doue, Germanicè eyn taube. Saxoníce eyn duue.

Aristoteles:


2 These five words are not represented in Aristotle. Moreover the πάρδαλος is here omitted, and is placed later (p. 107 of the original work), but there seems to be some doubt as to the correct reading in the Greek.
3 Hist. An. Bk v. 43. The readings vary in places, but the rendering is decidedly free.
4 Gaza and Turner make indiscriminate use of 'Columbus' and 'Columba' for the same kind of bird.
OF THE COLLURIO.

Collurio—Columbi

Κολλυρίων, collurio, in English a feldfare or a feldefare. According to some Germans eyn krammesvogel.

ARISTOTLE.

The Collurio feeds on the same meat as the Merula. Its size is that of the aforesaid kinds—that is, the Vireo and the Molliceps—it is caught chiefly in the winter time.

The bird which I consider to be the Collurio equals a Thrush in size, but has a longer and more flouting tail, also a spotted breast. Rarely or never is it seen with us in summer: yet its plenty is so great in winter that of no kind is there more. It eats the berries of the Holly, the Least Service, and like trees. It flies in companies, and on its flight is very noisy.

OF DOVES.

Hepiarepd, columba, in English a dove, in German eyn taube, in Saxon eyn duve.

ARISTOTLE.

Of the Dove-kind, however, there are many sorts. For first there is the Livia, named from its livid colour, which is certainly a different kind from the Columba, inasmuch as it is smaller and less ready to be tamed: and it is livid in its plumage, verging upon black, and has moreover red and roughened feet. Wherefore nobody keeps this kind in cotes. Of greatest size among the several sorts are the Palumbes; the Vinago holds the second place herein, a little bigger than the Columbus. The smallest of them is the Turtur. The Columbæ breed at all times of the year, and rear their young, if they have but a sunny place and food. If otherwise they breed
æstate tantummodo fœtant. Sed proles praefantior uere est, quàm autumno, deterrima æestate, & omni tempore calidiore.

*De ijsdem in alio libro* ad hunc modum scribit,

Alia frugibus uiuunt, ut palumbes, collumbus, uinago, turtur. Vifuntur semper columbi, atque palumbes, sed turtur æstate tantù, hyeme se condit, latitat enim suo tempore. Vinago autumno & conspicitur, & capitur, cui magnitudo maior, quàm columbo, minor quà palumbi est.

**Liuiia.** Πελεεάς, quæ liuiia Latinè dicitur, est sylvestris illa columba, quam Angli a fœcodue, & Germani eum holÿ taube nominant.


**Ingìna** torquati, tardant hebetantq; palumbi
Non edat hanc uolucrem, qui uoleat esse fulax.

**Politianus** de palumbis ita scribit:

Dum sua torquate repetunt diëtata palumbes.

**Turtur.**

Turtures in Germania sunt multitè frequentiores quà in Anglia. Turturem Angli & Saxones communi vocabulo turTEL dùue nominant.

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2 The Greek is φωλεί γάρ. But how far Aristotle referred to birds 'hibernating' is very doubtful.
3 *Epigr.* Lib. xiii. lxvii.
4 A poet and scholar of the Renaissance.
only in summer. Yet in spring the young are better than in autumn, they are worst of all in summer and at every hotter season.

Of the same he writes in another book after this manner:

Other birds live on crops, as the Palumbes, the Columbus, the Vinago and the Turtur. The Columbi and Palumbes may be always seen, the Turtur only in the summer. In the winter it lies hid, for it conceals itself at the due time. But the Vinago is both seen and caught in autumn, of which bird the size is greater than that of the Columbus, but less than that of the Palumbes.

Πελειάς, which in Latin is called Livia, is that dove of the woodlands which the English name a stocdove, and the Germans eyn holtztaube.

Φάττα, in Latin Palumbes or Palumbus, is called by Englishmen a Coushot or a Ringged Dove, and by Germans named eyn ringel taube. It nests far otherwise than does the Livia, for that bird sometimes breeds in hollow trees and sometimes even in the walls of churches. But the Palumbes builds a nest of the frailest of a few small twigs laid crosswise in a mass of ivy or upon a bough. Now in this thing if there be anyone who places little confidence in my opinion that our collared doves are the Palumbes of the ancients, let him read with greater care his Aristotle and give ear as well to Martial the poet writing thus of the same birds:

Ringed doves make a man's loins slow and dull; Who would be lusty should not eat this bird.

Politian writes of the Palumbi thus:

While ringed doves seek again their accustomed haunts.

Turtle Doves are much more plentiful in Germany than in England. English and Saxons in common call it turtel duve.
Olivás, quae Latinè vinago dicitur, mihi nunquà haçteunus uifa eʃt, nec quid habeat nominis apud nostròs, aut apud Germanos compertìum habeò. Vidi tamen Venetijs colombos hijs nostratibus fesquialtera portione maiores: fed hos non vinagines fuiffe credo, fed colombos è Campania ad Venetos adueçlos, ubi Plinius columbowsc scribit essè grandìssìmos.

DE CÔTVRNICE.

ötprvξ, coturnix, Anglice a quale, Germanice eyn wachtel.

PLINIUS 1.


1 Hist. Nat. Lib. x. cap. xxiii.
Olivás, in Latin called Vinago, has never met my eye up to this time, nor have I yet found out what name it bears among our countrymen or among Germans. But I have seen doves in Venice half as big again as those of our own land, although I do not think that they could be Vinagines, but birds brought to those parts out of Campania, where Pliny notes the Doves to be exceeding large.

OF THE COTURNIX.

ὸπτυξ, coturnix, in English a quale, in German eyn wachtel.

PLINY.

The Coturnix is a little bird, and, when it comes to us, keeps on the ground more than aloft. Yet it flies hither just as Grues and Ciconiae, not without danger to sea-faring men, when they approach the land. For these birds often settle on the sails, and that always at night, and so sink ships. The seed of Veratrum, or, as others read, Venenum, is a very grateful food to the Coturnices, and for this cause men have condemned them for the table; furthermore it is the custom for them to be spurned on account of the falling sickness, to which, they alone of animals, save man, are subject.

Now since these things are so, I marvel much what evil genius put it into the mind of my fellow Britons to esteem them thus among their delicacies, when their flesh is liable to ills so many, namely poison and the falling sickness. The Quail is like the Partridge, although many times smaller. As Aristotle writes, it claims a property peculiar to it of having both crop and gullet large and wide near to the stomach.
DE CORNICE.

**Coronē**, corvix, Anglicè a crouu, Germanicè eyn frae, & eyn fraeg. **Cornix** avis est omniuora, nam carnes, pisces, & grana interdum usurat, circa littora maris, & ripas fluminum multùm uersatur, ut ea animalia, quæ [p. 53] unda eiccit, tangat. **Cornix** tota nigra est. & media magnitudine inter monedulam & coruum.


DE CORVO.

**Korax**, corvus, Anglicè a rauen, Germanicè eyn rabe. **Corvus**, quam sit avis cornice maior, tota nigra & carniuora, omnibus fatis notus est. Cornui locis arcticorum & ubi fatis pluribus non sit, duo tâtùm incolunt, & suos pullos cum iam potestas uolandi est, primùm nido eiciunt, deinde regione tota expellunt. Parit corvus quatuor aut quinqu.

DE CVLICILEGA.

**Kυπτολόγος**, culicilega, Anglicè a uugtale, Germanicè eyn waesser stelh, eyn quisstery.

**Aristoteles** 1.

Culicilega, magnitudine est quâta spinus, [p. 54] colore cinerea, distincta maculis, uoce parua, quae & ipsa lignapeta 2 est.

Culicilegam esse iudico avicum, quam aliqui motacillum nuncupant. est autem illa albo & nigro uarië

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1 *Hist. An.* Bk VIII. 44.
2 The Greek is ἔστι δὲ καὶ τοῦτο χυλοκόπου.
OF THE CORNIX.

Kορώνη, cornix, in English a crow, in German eyn krae and eyn kraeg.

The Crow¹ is an omnivorous bird, for it eats flesh and fish and sometimes grain; it much frequents sea-coasts and river-banks, that it may there obtain those animals which the tide has thrown up. The Crow is wholly black and is midway in size between a Daw and a Raven.

There also is a certain Sea Crow, which some call the Winter Crow², with black head, tail, and wings and the remainder grey: but whether Aristotle or Pliny ever saw this bird I am uncertain, for they have not mentioned it in any place. There still remains another Crow³, a grain-eater, with white beak, but black otherwise. Longolius conjectured this to be Aristotle's σπερμολόγος, that is frugilega.

OF THE CORVUS.

Κόραξ, corvus, in English a raven, in German eyn rabe.

The Raven, inasmuch as it is bigger than the Crow, quite black, and a flesh-eater, is sufficiently well known to all. In places with less space, and where there is not room for many, Ravens dwell only in pairs, and, when their young have just gained power of flight, the parents first banish them from the nest, and later drive them out of the whole neighbourhood. The Raven has a brood of four or five.

OF THE CULICILEGA.

Κυπολόγος⁴, culicilega, in English a wagtail, in German eyn wasser steltz, eyn quikstertz.

ARISTOTLE.

The Culicilega is a bird of the same size as the Spinus, ash-coloured, and marked with spots: its voice is poor; moreover it pecks wood.

The Culicilega I judge to be that little bird, which some name Motacilla, inasmuch as it is variously marked with

¹ The Carrion Crow (Corvus corone).
² The Hooded or Grey Crow (Corvus cornix).
³ The Rook (Corvus frugilegus).
⁴ Sundevall thinks that this bird is Certhia familiaris.
Culicilega—Cuculus

distincta, cauda longa, quam semper motitat, degit plurimum ad ripas fluminum, ubi muscas captat & uermiculos, quin & aratrum uermium causa sequitur, quos uerfat & exhibet cum gleba aratrum.

DE CVCVLO.

Kókkvς, cuculus, Anglicè a cukkouv, & a gouke, Germānicè eyn füffuf.

ARISTOTELES¹.

Cuculus ex accipitre fieri, immutata figura, à nonnullis putatur: quoniam quo tempore is appareat, accipiter ille, cui similis est, non aspiricitur. Sed ita ferè euenit, ut ne cæteri item accipitres cernatur cum primam uocem emisit cuculus, nisi perquàm paucis diebus. Ipse autem breui tempore ëstatis uifus, hyeme nò [p. 55] cernitur. Eft hic neque aduncis unguibus, ut accipiter, nec capite accipitri similis: sed ea utraque parte columbum potius quàm accipitrem repræsentat. Nec alio quàm colore imitatur accipitrem, nisi quòd maculis distinguitur, ceu lineis, cuculus uelut punctis. Magnitudo atqì uolatus similis accipitrù minimo, qui magna ex parte non cernitur per id tempus, quo cuculus appareat. Nā uel ambo una uisi aliquando sunt. Quin etiam ab accipitre interimi² cuculus uifus est, quod nulla auis suo in genere folet facere. pullos cuculi nemo ait fe uidisse. parit tamē, uerùm non in nido, quem ipse fecerit, fed

¹ Hist. An. Bk vi. 41—44.
² Aristotle has κατεσθοώμενος.
black and white, and it has a long tail, which it is always jerking. It mostly haunts the banks of rivers, where it catches flies and little worms; moreover it follows the plough for the sake of the worms which are turned up and laid bare with the clod.

OF THE CUCULUS.

Kókkuξ, cuculus, in English a cukkow, and a gouke, in German eyn kukkuck.

ARISTOTLE.

By some the Cuculus is thought to come by change of form from an Accipiter, since, at the season when the former appears, the Accipiter which it resembles is not seen. But commonly it so falls out that the other Accipitres are likewise absent when the Cuculus utters its earliest cry, save for a very few days. Further the bird itself is only seen for a short time in summer; it is not observed in winter. Nor has it the claws hooked as an Accipiter, nor yet a head like an Accipiter: but in both of these parts it counterfeits a Columbus rather than an Accipiter. In naught but colour does it imitate the Accipiter, except that in its marks, it is distinguished as it were by lines, the Cuculus by spots. The size and mode of flight are like those of the least of the Accipitres, which for the most part at the time wherein the Cuculus appears, is not to be observed. Yet on occasion both have been seen at once. The Cuculus, moreover, has been known to be struck down by the Accipiter, which thing no bird is ever wont to do to one of its own kind. Nobody says that he has seen young of the Cuculus, and yet it breeds, although not in a nest which it has made itself: but sometimes

1 Such a tradition is still common in many parts of this country and on the Continent.
interdum in nidis minorum auium, & oua, quae aliena reperit, edit: maximè uerò nidos palū-
[p. 56] bium petit, quorum & ipsorum oua eſu abfumit, sua relinquens: parit maiori ex parte singula oua, rarò bina. Curucæ quoque in nido parit, fouet illa & excudit & educat. Quo quidem preci-
puè tempore¹ & pinguis & grati faporis pullus cuculi eſt. Genus eorum quoddam nidos facere procul in petris excelſis, præruptisq; affolet.

Cuculum hic nobis fatis graphicè depinxit Aristoteles, fi curucam eadem diligentia descripsisset, non suifset hodie tam omnibus ferè incognita quà nunc eſt. Ego suſpicor Anglorum titlingam eſse curucam Aristotelis. Nam nullam auem in vita frequentiās cuculi pullum sequentem, & pro ſuo educantem, quam illam obfervaui. Eſt autem illa lufcinia minor, ſed eadem corporis figura, colore suburidi, culices & uermicululos in ramis arborum feſtatur, rarò humi conſiſtit, hyeme non cernitur.

DE crece ex Aristotele².

[p. 57] Sed cū omnibus quaterni digiti ſint, tres parte priore habentur, unus parte pofteriore pro calce, ut tute ſit, qui minutus ineſt ijs, quæ longa habent crura, ut in crece euénit⁴. Eſt⁴ autem crex moribus pugnacibus, ingenio ualens ad uiſtum, fed cætera inſolēx.

Eſt auis quædam apud Anglos, longis cruribus, cætera coturnici, nisi quod maior eſt, ſimilis, quæ in fegete & lino, ſe uere et in principio æflatis non aſiam

¹ This apparently means ‘when in the nest.’ How then does Aristotle say that ‘no one has ever seen the young’? The passage may be an interpolation, as may be another which follows referring to Hawks. If so, the fact of nesting on rocks may also refer to Hawks, and be a further interpolation.


³ ‘ut...evenit.’ These words are not in Aristotle.

in the nests of smaller birds, and it devours the eggs of the others that it finds. It mostly seeks the nests of the Palumbes and eats those birds' eggs, leaving its own behind. For the most part it lays a single egg or rarely two. It also lays in the Curuca's nest, and that bird sits upon the eggs, hatches and rears the young. And at that time indeed the offspring of the Cuculus is both particularly fat and of a grateful flavour. A certain kind of Cuculus is wont to make its nest far off on steep and very lofty rocks.

Here Aristotle has portrayed the Cuculus to us most graphically, and, had he described the Curuca in the same careful way, it would not at this day have been so little known to almost everyone as now it is. The Curuca of Aristotle I suspect to be the Titling\(^1\) of the English. For I have observed no other bird in life more frequently than this following the Cukkow's young and rearing it, as though its own. Now it is less than the Luscinia, but with the same figure of body, and in colour somewhat green; it hunts for gnats and little worms among the boughs of trees. It seldom settles on the ground, and is not seen in winter.

**OF THE CREX FROM ARISTOTLE.**

But seeing that all birds have four toes each, three are directed forwards and one backwards by way of a heel, for safety's sake; the last is very small in such as have long legs, as happens with the Crex. Further the Crex is of pugnacious habit, clever in procuring food, but of bad omen otherwise.

There is a certain bird in England with long legs, otherwise like a Quail, except that it is bigger, which in spring as well as early summer makes no other cry among the corn and flax

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\(^1\) It is impossible to say with certainty what Turner's 'Titlyng' was; but probably he meant the Tree-Pipit, which he confounded with the Titlark.
habet uocem, quàm crex crex: hâc enim uocem semper ingeminat, quam ego Aristotelis crecem esse puto. Angli auem illam uocant a daker hen, Germani eòn juvôf. numquam in Anglia nisi in jùla Northumbria uidi & audiui.

DE DIOMEDEIS AVIBUS EX PLINIO¹.


DE FICEDVLA.

[p. 59] Συκαλίς, ficedula Latinië dïëta, non est Germanorûm śneppa, quæ locis gaudet humidis, & folis ner-

¹ Hist. Nat. Lib. x. cap. xlv.
than crex crex, and moreover it repeats this sound incessantly; I think that it is Aristotle’s Crex. This bird the English call a Daker Hen, and the Germans eyn schryk. I have not seen or heard it anywhere in England, save in Northumberland alone.

**OF THE AVES DIOMEDEÆ FROM PLINY.**

And I will not omit the birds of Diomede, which Juba calls Cataractae, telling us that they have teeth and fire-coloured eyes, but otherwise are white. They always have two captains, one to lead the band, the other to bring up the rear. These birds dig furrows with the beak, then cover them with wattlework, and hide this with the earth thrown out at first; in these places they breed. Each furrow has two openings, one facing east, by which they may go out towards their feeding grounds, the other facing west, by which they may return. They always flutter out to disburden the belly, and against the wind. In one place only of the whole world are they to be seen, namely that island which we have set down as famous for the tomb and shrine of Diomede, over against the shore of Apulia. They are like Fulicae. Strangers who come there they attack with clamour, only on the Greeks they fawn, with wonderful discernment, paying as it were this tribute to the race of Diomede, and every day they purify his shrine with brimming throats and water-laden wings.

**OF THE FICEDULA.**

Συκαλίς, in Latin called ficedula, is not the sneppa of the Germans, which delights in wet localities, and feeds only

1 Schlegel (Vog. Nederl. ii. 60) says that the Dutch schriek is the Water Rail (*Rallus aquaticus*), but Turner evidently means the Corn Crake (*Crex pratensis*). Naumann (*Naturl. Vög. Deutschl. ix. p. 496*) gives Schrecke as a local name for the Corn Crake.

2 Apparently Shearwaters of some species are meant. For the story see any work on Mythology.

3 For the supposed change of Ficedula into Atricapilla, see p. 39.
mibus uescitur; sed auctula Germanorum grafsmuscho
similis, ficulus & uuis uiicitas, ut pulchrè his ueribus
Martialis 1 teflatur:

Cùm me ficas alat, & pafcar dulcis uuis,
Cur potius nomen non dedit uua mihi?

DE FRINGILLA.

Σπίλα, fringilla, Anglicè a chaffinche, a sheld appel,
a fpink, Germanicè eyn bûchfint.

Fringillaæ, autore Aristoteleæ, æflate tepidis locis, &
hyeme, frigidis degunt, & inde puto apud Latinos nomen
acceptisse, quod in frigore plures conuolantes apud nos
cernantur, quàm æflate. Pafcerem magnitudine æquat,
uarijs coloribus, albo nempe, uiridi & ruffo distincta est.
maris pedibus rubescit, famineæ pallefcit: cantat mas
primo uere. Nidulatur fringilla in summis fruticum
ramis, aut arborum infimis, nidumq; intus ex lana,
forisq; ex musco facit.

DE MONTIFRINGILLA.

Ὀροσπίλας, mortifringilla, Anglicè a bramlyng, Ger-
manicè eyn rowert.

ARISTOTELES 2.

[p. 60] Montifringilla fringillæ similis est, & magni-
tudine proxima: sed collo ceureleo est, & in
montibus degit, unde nomen acceptit.

Auicula, quam ego mortifringillam esse credo, frin-
gillaæ magnitudine & corporis figura similis est: sed
mas in collo plumas habet ceureauas, quas nó æquè
promptè in famina deprehendatas. Rostrum luteum est,
& alæ varijs coloribus, albo, nigro, & luteo nimirum
distinguimus, ut auriiuitis. Vox illi insuanis & strid-
dula est.

1 Epig. Lib. XIII. xlix.
on worms\(^1\); but is a little bird like the grasmusche of the Germans, living upon figs and grapes, as Martial prettily bears witness in these lines:—

Since the fig gives me nourishment, and I feed on sweet grapes, Why has the grape not rather given me a name?

**OF THE FRINGILLA.**

\(\Sigma\pi\iota\alpha,\) fringilla, in English a chaffinche, a sheld-appel\(^2\), a spink, in German eyn bûchfink. Fringillæ—on Aristotle's authority—in summer haunt warm places, and in winter cold; and thence I think that they received their name among the Latins\(^3\), for when it is cold more are seen flocking round us than in summer time. In size the bird equals a Sparrow and is marked with various colours, namely, white and green, and russet. In the male the breast is ruddy, in the female pale. The male sings in the early spring. The Fringilla nests upon the highest boughs of shrubs or on the lowest boughs of trees, and fashions its nest inwardly of wool and outwardly of moss.

**OF THE MONTIFRINGILLA.**

\'Οροσ\(\Sigma\pi\iota\alpha,\) montifringilla, in English a bramlyng, in German eyn rowert.

**ARISTOTLE.**

The Montifringilla is like the Fringilla, and similar in size, but with a blue neck; and it lives in mountains, whence it has its name.

The little bird which I believe to be the Montifringilla, in size and shape of body is like the Fringilla, but the male has blue feathers upon the neck, which one cannot perceive so quickly in the hen. The beak is yellow, and the wings in truth are marked with various colours, yellow, black and white, as in the Aurivittis. Its note is unmelodious and grating.

\(^1\) See p. 35.

\(^2\) Shell-apple, or Apple-sheiler is still a Northumbrian name for the Chaffinch. The word ‘sheld’ may mean ‘parti-coloured.’

\(^3\) Here Turner's mistaken etymology (*Fringilla a frigore*) is evident.
DE FLORO EX ARISTOTELE. 1

Anthos, siue florus, uermibus pascitur, & magnitudo illi, quanta fringillae est. uicitat circa aquas & paludes, & ei color pulcher est, & uita commoda, odio equum habet, pellitur enim ab equo pabulo herbæ, qua uetcitur. Nubeculans, nec ualens oculorum acie est, quippe qui uocem equi imitetur, atque aduolans [p. 61] equum fuget: sed interdum excipiatur occidatur: ab equo. In ægithum florus tantum odium gerit, ut ne mortuarum auiiæ fanguis posse misceri dicatur.

DE FVLICA.

Kēτφος, fulica, Anglice a uhwite femauu uuith. a blak cop. Germanicè, ευη uηηίε meue.

Recentiores Greci, qui post Aristotelem scripscrunt, larum & cepphum eandem auem fecerrunt, ut Erasmus in Adagio, λάρος κέτφος, ex Aristophane & eius inter- prete öflendit. Aristoteles uerò duas facit diuertas aues libro de historia animalium oδαρω his uerbis, ἐστὶ δὲ λάρος ὁ λευκὸς καὶ κέτφος. Iam quanam ratione autores ἱσθος conciliē, nescio, nisi dicam poētas rerum peculiæs & proprias notas, & discrimina, philosophs mulō negligentius obserrantes, aues corporis figura, natalibus, & uicīus ratione similes, licet manifestis notis differentes, easdem aues fæcisse, quas feueriores philosophi ad amassim omnia expendentes, in diuertas species dif- tinxerunt.

Sed inter huius ætatis grammaticos, non minor est opinionum varietas de fulica, quænam illa sit, quàm [p. 62] inter Græcos de nomine controverśia fuit. Sunt enim

1 Hist. An. Bk VIII. 41 and Bk IX. 18, 22, freely rendered.
2 Pax, l. 1067. By ‘interpreter’ is evidently meant the Scholiast, who says that the Proverb is used of those who promise much, and perform little.
Florus—Fulica

OF THE FLORUS FROM ARISTOTLE.

The Anthos, that is Florus, feeds on worms; its size is that of the Fringilla. It gets victual round waters and marshes; its colour is fair, and its life easy to it. It holds the Horse in hatred, inasmuch as it is driven by the Horse from the grassy pastures where it feeds. It is purblind and nowise keen of eyesight, while it imitates the neighing of the Horse, and flying at it puts the Horse to flight, yet sometimes it is caught and then killed by the Horse. The Florus has so great a hatred of the Ægithus that it is stated that the blood of these two birds, even when dead, cannot be mixed.

OF THE FULICA.

Κέπφος, fulica, in English a white semaw, with a black cop, in German eyn wyss mewe.

The later Greeks, who have written after Aristotle, have made the Larus and the Cepphus the same bird, which fact Erasmus in his Proverb λάρος κέπφος shews, from Aristophanes and his interpreter. But Aristotle in the eighth book of his History of Animals keeps the two birds distinct, using the following words:—"There is the λάρος that is white, also the κέπφος." Now in what way to reconcile these authors I know not, unless I say that poets who observe more negligently than philosophers the peculiar properties of things, and their diversities, have made these birds the same, which are alike in form of body, breeding-time, and way of feeding, although differing in manifest respects, whereas philosophers, more strict than they, gauging all things exactly, have distinguished them as different kinds.

And yet there is not less diversity of opinion among the critics of our day about the Fulica, and what that bird may be, than there was controversy among the Greeks about its name. For there are teachers of a sort in Lower

1 'Literatores' is here apparently used in a somewhat scornful sense.
in inferiori Germania literatores aliqui, qui fulicam kyuuittam suam esse volunt, ex eo forsan opinionem suam adscruentes, quod apud Plinium fulice cirrum tribui legerint. Est autem Germanorum kyuuitta cornice minor, plumis ferè uiridibus, et nigris per totum dorsum et caput et collū: uentre albo, longa, & semper ereclia in capite: crišta plumea, alis obtusioribus, & inter uo-
landum magnum fīrepitum eidentibus, unde & uannellus a barbaris dictur: aquis uermium gratia, quibus folis uičit, appropinguat, sed ipfas non ingreditur, in planis & in locis erica confttis, plurimum degit. Ad depopulandum uermes, noftrates in hortis fæpè alunt.

Sed hanc efse fulicam non patitur, quod Vergilius de fulica Georgicorum primo ad hunc modum scribit:

Iam fibi tum curuis malè temperat unda carinis,
Cūm medio celeres reuolant ex æquore mergi,
Clamoremf; ferunt ad littora, cumf; marinae
In ficco ludunt fulice.

Hinc fatis liquet kyuuittam non esse fulicam, quum
non fit auis marina nec aquatica. Non defunt qui
fulicam gallinam illam nigram aquaticam, alba in
fronte macula, esse volunt. Sed ifdi Vergil. et Arißto-
telis autoritate facilè erroris convincuntur, quorum alter
auem facit marinam, alter, nempe Aristoteles lib. očlauo
historiae animalium, apud mare uiuere teſsatur. Quare
quum palusiris illa gallina neque auis sit marina, neq;
apud mare uičum petat, sed in fľagnis, paludibus, &
recentibus aquis perpetuè degat: nec Vergilitj fulica, nec
Aristotelis κεπφος esse poterit. Sed iam reſlat, ut quam
auem fulicam esse iudicem, ofſtendam.

Eft auis marina, magnitudine monedulæ, sed alis
acutioribus & longioribus, colore tota albo, excepto nigro,
quem in capite gerit cirro: rostro etiam & pedibus
puniceis. Hanc ego fæpè in mari nauigans, ex eo

1 Lib. i. l. 360—3.
Germany, who will have it that the Fulica is their Kywit, possibly resting their opinion on what they have read in Pliny of a tuft being attributed to the bird Fulica. The Kywit of the Germans is, however, smaller than a Cornix, with the plumage almost green and black on the whole back and head and neck, the belly white, a long and always upright feathery crest upon the head, and somewhat rounded wings, which during flight make a great hurtling, whence it is even named by foreigners Vannellus. It approaches waters for the sake of worms, on which alone it feeds, but does not enter them. It mostly lives in open country, and in places overgrown with heather. Our people often keep this bird in gardens, to destroy the worms.

And yet what Vergil in this manner writes in the first book of his Georgics of the Fulica will not permit this bird to be his Fulica:

"And now the waters scarce restrain themselves from the ships' curving keels, while the swift Mergi wing their way once more out of the Ocean's midst, bringing their noisy voices to the shore, and while the Fulice, frequenters of the sea, disport themselves on land."

Hence it is clear enough that the Kywit is not the Fulica, since it is not a sea-bird nor a water-bird. There are not wanting those who would have that black Water Hen, with a white frontal patch, to be the Fulica¹. But on the strength of Vergil and Aristotle such are easily convicted of mistake, for one of these makes it a sea-bird, and the other, namely Aristotle in the eighth book of his History of Animals, bears witness that it lives about the sea. Wherefore, since that Marsh Hen is neither a sea-bird nor seeks its food about the sea, but constantly haunts pools, and marshes, and fresh waters, it can neither be the Fulica of Vergil nor the κέπτος of Aristotle. But it still remains that I should shew what bird I judge the Fulica to be.

There is a sea-bird², like a Daw in size, but with the wings sharper and longer, wholly white in colour, save for a black patch which it bears on the head, and with the beak and feet of purplish red. I often, journeying upon the sea, have had

¹ I.e. the Coot (Fulica atra).
² The Black-headed Gull (Larus ridibundus).

DE GAVIA.

Λάπος, gauia, a fe cob or a seegell.

this bird in mind, from the time that I read Aristotle's History of Animals, and then especially when through the wind failing or blowing contrary, the anchor being dropped, we have been calmly awaiting a more favourable wind. The anchor being weighed this bird immediately flies to us in the company of Gulls, promising something to itself by way of food out of the refuse cast forth from the ship; at last exhausted by its constant cries it merely utters "keph," as Gulls cry "cob." And hence they are called Sea-Cobs by our countrymen. It may be that some of the race of Fulicæ are grey, though Pliny, when on the authority of Juba he relates that the birds known as Diomede's are white like Fulicæ, seems to put down all Fulicæ as white; for classical authorities speak not in any class of what more rarely, but of what more frequently occurs. Gulls nest in the same places as do Fulicæ, forsooth on lofty crags and rocks about the sea.

OF THE GAVIA.

Ἀὐρος, gavia, a se cob or a see-gell.  
Aristotle makes two kinds of Gaviæ, one white, which seeks its food about the sea, the other grey, which seeks it round the lakes and rivers. Now I think that the white Gavia differs but little from the Fulica, only indeed as to the hood and beak. The grey Gavia, which comes up to our rivers and lakes, is always querulous and full of noise. It catches little fishes and eats worms upon the banks of lakes. There is another small bird of this kind, called Stern¹ in local dialect, which is so like the sea Lari that it seems to differ from them only in its size and colour; for it is a Larus, though smaller than the sea Lari and blacker. Throughout the whole of summer, at which time it breeds, it makes such an unconscionable noise that by its unrestrained clamour it almost deafens those who live near lakes and marshes. This I certainly believe to be the bird whose vile garrulity gave rise to the old Proverb "Larus parturit." It is almost always flying over lakes and swamps, never at rest, but always open-mouthed for prey. This bird nests in thick reed-beds. The sea Gaviæ breed on crags and rocks about the sea.

¹ The Black Tern (Sterna nigra).
DE GALERITA.

Galeritarum duo sunt genera: alterum terrenum cristatum, alterum gregale. nec singulare more alterius, uerum colore simile, quâquam magnitudine minus, & galero carês, cibo uerò idoneœ, galerus nonquâ in arbore conßtunt, sed humi.


Superest tertium galeritæ genus, Germanis copera, à longissima crisâ, ut arbitror, ita dicitum, Aristotelis planè incognitum: nam prius Aristotelis genus esse non poteût, quia minor est quàm ut illud esse posset: minûs autem illud genus esse non poteût, quia galerum habet, qui Aristotelis posteriori generi deess. Quare galerita ista, Aristotelis fuit incognita. Et cûm Colonienfes aucupes coperam (quæ mediae est magnitudinis inter Aristotelis

OF THE GALERITA.

Kόρυδος, ἢ κορυδαλός, in English a lerk or a laverock, in German cyn lerch.

Pliny, in the eleventh book of his Natural History, has shown us that Galerita\(^1\), taken from a Gaulish word, was called Alauda afterwards, wherefore I think that on Pliny's authority the name of Galerita should be used by those who write in Latin rather than Alauda.

ARISTOTLE, OF THE GALERITÆ.

Of Galeritæ there are two kinds, one is a crested ground-bird, but the other lives in flocks, not singly as the former. Yet in colour it is similar, though of a smaller size, and not having a crest. Moreover it is fit for food. The Galeritæ never sit upon a tree, but always on the ground.

The first kind given by Aristotle has in different lands a different crest, in one place always evident, elsewhere such that the bird can raise or lower it at will, although the size of either is one and the same. This larger Galerita English-men call the Lerc proper, while Aristotle's second sort is by our countrymen named a Wilde Lerc, and by the Germans a heid lerch; this for the most part lives in open country, and in places overgrown with heather, and on banks of lakes, for the sake of the worms on which it feeds. This bird is smaller by nearly one half than the aforesaid, with a slender beak, and flesh by far the sweetest.

There still remains a third kind of Galerita, the Copera of the Germans, thus named I believe from its very long crest, and certainly unknown to Aristotle, for it cannot be his first kind, inasmuch as it is smaller than that bird can be; likewise it cannot be the smaller sort, because it has a crest, which is not present in the latter kind. Wherefore this Galerita was unknown to Aristotle. And since the fowlers of Colonia [Cullen] with one accord assure us that the Copera (which is midway in size between Aristotle's crested Galerita

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\(^1\) Galerita is usually supposed to have some connexion with the Latin galea = a helmet.
82 Galerita—Galli et Gallinæ

galeritam crīstātam, & non crīstātam) concordibus ad- 
firment suffragijs, hanc nullā habere peculiarem can- 
tunculam, sed ineptē aliarum, quibuscum uīcitāt, avium 
voces referre, adducor planē ut credam hanc esse recent- 
tiorum Graecorum corydon, cuius in sequenti adagio 
mentio est évamousis1 kai kórdos φθέγγεται, & in 
hoc ueru:

ei κύκνο δύναται κόρυδος παραπλήσιον ἄδειν.

Nā galerita maior, pulchrē & suasīter cantat, & 
inominem cantu non minūs ualere tradunt aucupes. Hec 
igitur quum uoce nihil posīt, sed ineptē tantūm aliarum 
voces, suo garritu mentiri, recentiorum Graecorum erit 
corydos.

[p. 67]

DE GALLIS ET 
gallinis.

Ἀλέκτωρ, gallus, Anglice a cok, Germanicē eyn ħūn. 
Ἀλέκτορις, gallina, Anglice a hen, Germanicē, eyn ħēn. 
Saxones dicunt eyn ħūn.

VARRO2 DE RE RUSTICA LIBRO TERTIO.

Gallinæ rusticae, sunt in urbe rarē, nec ferē 
manfuētē fine cauea uidentur Romæ, similes 
facie non his uillaticis gallinis nostris, sed 
Africanis aspecētu, ac facie incontaminata. In 
ornatibus publicis solent poni cum pūticis ac 
merulis albis, item id genus rebus inuissetatis. 
Neque ferē in uillis oua ac pullos faciunt, sed 
in fyluis.

Gallinæ Africanæ, sunt grandes, uariē, gib- 
berē, quas Meleagrides Graeci appellant. Hæ 
nouissimae in triclinium ganearium introierunt, 
[p. 68] è culina propter faœtidium hominū. Venerunt3 
propter penuriam magno. De tribus generibus, 
gallinæ faginantur maximē uillaticē. Eas in-

1 Undoubtedly the reading should be:—ἐν ἀμοῦροι = among 
those with little voice. Both these proverbs are to be found in 
the Adages of Erasmus, Chil. ii. Cent. ii. 92.
2 Bk III. cap. ix.
3 No doubt a misprint for 'veneunt' = are sold.
and the non-crested) has no song of its own, but feebly imitates the notes of other birds with which it feeds, I am assuredly led to believe that it must be the Corydos of the later Greeks, of which mention is made in the proverb below:—

'Ενάμονοις καὶ ὁ κόρυδος φθέγγεται,

and in this verse:—

εἰ κύκνῳ δύναται κόρυδος παραπλήσιον ἀδειν.

For the larger Galerita sings fairly and sweetly, and the fowlers say that in its song the smaller kind is worth no less. Wherefore the third kind, since it has no power of voice except feebly to imitate the voices of the others by a twitter of its own, will be the Corydos of the later Greeks.

OF THE GALLI AND GALLINÆ.

'Αλέκτωρ, gallus, in English a cok, in German eyn hän.

'Αλέκτορις, gallina, in English a hen, in German eyn hen. The Saxons say eyn hön.

VARRO, IN HIS THIRD BOOK DE RE RUSTICA.

The wild Gallinæ are rare in a city, and are scarcely seen at Rome tame, unless in a cage: they are not in appearance like the Gallinæ of our country-houses, but in look recall the African, and have the face unmarked. During public festivities these birds are wont to be exhibited with Psitaci, white Merulæ, and other unfamiliar kinds of that description. They do not usually lay their eggs or hatch their young at country-houses, but among the woods.

The African Gallinæ, which the Greeks call Meleagrides, are big, speckled, and hunch-backed. They have been the last to enter the dining room of eating-houses from the kitchen through people's fastidiousness. And from their rarity they have advanced to a great price. Of the three kinds those of the country-house are chiefly fattened. These they keep shut up in

1 It is impossible to reconcile the statements of Varro and Columella as they stand. Various alterations of the text, which is possibly unsound, have been suggested.
Gallius medicus a bauncok or a cok of kynde.

Galli et Gallinæ

cludunt in locum tepidum & angustum & tenebrosum, quod motus earum & lux pinguedini inimica, elecritis ad hanc rem maximis gallinis, nec continuo his, quas Melicas appellant falsō, quod antiqui ut thetim thelim dicebāt, sic Medicā Melicā vocabant. Hæ primō Medicē dicebantur, quia ex Media propter magnitudinem erant allatae.

COLUMELLA¹.

Gallinarũ aliē sunt cohortales, aliē rustice, aliē Africane. Cohortalis est auis, quæ uulgo per omnes ferē uillas conspicitur. Rustica, quæ non diffimilis uillatice, per aucupem decipitur, ea quæ plurima est in insula, quā nautæ in Ligustico mari sitam, producō nomine altis, gallinariā uocitauerunt. Africana est, quam plerique Numidicam dicunt, meleagridi similis, nisi quod rutilam galeam, & criōta capite gerit, quæ utraque in Meleagridė sunt cœrulea.

PLINIUS².

Simili modo pugnant Meleagrides in Bœotia. Africæ, hoc est gallinarum genus gibberum, uarijs sparfum plurimis, quæ nouissime sunt peregrinarum auium in mensis receptæ, propter inquam virus: uerum Meleagri tumulus nobiles eas fecit.

ARISTOTELES³.

[p. 70] Item Hadrianœ paruo quidem sunt corpore, sed quotidiem pariunt. Ferociunt tamen & pullos fœpè interimūt. Color his uarius. Oua⁴

¹ De re rusticā, Lib. viii. cap. ii.
⁴ Hist. An. Bk vi. 5.
a warm, narrow, and dark place, for exercise and light hinder the fattening. The largest birds are chosen for this purpose, and not always those which men mistakenly call Meliceæ, because the ancients, as they used to say Thelis for Thetis, also used to call Medica Melica. At first they were called Mediceæ because on account of their size they were brought hither out of Media.

COLUMELLA.

Of Gallinæ some are court-yard birds, others again are wild, others are African. The court-yard bird is that which commonly is seen at nearly every country-house. The wild sort, which is not unlike that of the country-house, is trapped by bird-catchers. It is abundant in the island lying in the Ligurian sea, which sailors, lengthening the bird’s name out, have called continuously Gallinaria. The kind from Africa, which many call Numidica, is like the Meleagris, save that on its head it bears a helmet and a crest of red, but in the Meleagris both of these are blue\(^1\).

PLINY.

In a like way the Meleagrides fight in Bœotia. The Africæ, that is a hunch-backed kind of Gallinæ, are sprinkled here and there with variegated feathers; and they are the last of foreign birds to be received at table, on account of their unpleasant flavour: but the tomb of Meleager has ennobled them\(^2\).

ARISTOTLE.

Likewise the Hadrianic birds are small indeed in body, but they lay their eggs daily. Yet they are fierce and often kill their chicks. They are of varied

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1 See Art. Guinea Fowl in Prof. Newton’s Dict. B. p. 399.
2 The reader may here be referred to any work relating to mythology.
Galli et Gallinæ—Gallinago

alia candida sunt, ut columbarum & perdicum, alia pallida, ut palufrrium, alia punctis distincta, ut Meleagridum & phasianorum.


DE GALLINAGINE.

Ἀσκαλωταῖ, gallinago, Anglicè a uud cōk, Germanice eun holē ʃneʃʃ.

Aristotelesā.

Gallinago per fēpes ē Hortorum capitūr, magnitudine quanta gallina est, rostro longo, colore attagine, currit celeriter, & hominem mirē dilit. Hāc in arbore nunquamū sedet, & humin nidulatur.

1 A misprint for 'uillaticis.'
2 Perhaps the reading should be galeis, cf. p. 69, ll. 6—7.
3 Hist. An. Bk IX. 102. 66.
4 Aristotle has in addition—εψεστε= in nets.
colouring. Of certain kinds of birds the eggs are white, as those of Columbæ and Perdices, others are pale, as those of marsh-birds; others marked with spots, as those of Meleagrides and Phasiani.

In those few authors, whose works I have scanned, not a few of the things which they have treated are disputable. First Varro tells us that the wild-bred Gallinæ are not like those of country-houses, but the African; while Columella states that the wild sort is not unlike that of the country-house. Varro makes the Africanæ to be the Meleagrides, which Pliny also seems to do. Yet Columella separates the Africanæ from the Meleagrides by various characters. And Aristotle makes his Hadrianic fowls of various colours, as does Pliny also, and of little size. But Varro makes the Africanæ big and of varied colours, though it is quite clear that they are nothing but the Hadrianic birds. But after all it is not in my power to adjust the mutual differences of authors, when so great; and yet in a few words I will disclose what I think of these kinds. The wild Gallina is not found with us in any part, if it be not that which they name Morhen, and this I formerly conjectured to be the Attagen for several reasons. The Meleagrides of Columella seem to be those birds which some call Indian peacocks1, for they are admitted to have wattles and blue crests.

OF THE GALLINAGO.

Ἀσκαλόπαξ, gallinago, in English a wod cok, in German eyn holtz sneppf.

ARISTOTLE.

The Gallinago is taken among the hedges of our gardens; it is of the size of a Gallina, but has a long bill, and the colour of the Attagena: it runs with speed, while it is wonderfully fond of man. This bird never sits on a tree and it nests on the ground.

1 Turner was, of course, wrong in his conjecture.
2 Turner makes σκολόπαξ the same as ἀσκαλόπαξ.
Gallinagines apud nofrates nunquam, nifi hyeme uidentur, quare de prole & modo nidulandi, nihil habeo, quod dicâ. Capitur apud Anglos diluculo potissimum & crepusculo in fyluis, retibus in loco arboribus uacuo, suspensus, & ueniente aue demisîs.

DE colio, sive galgulo¹, ut vertit GAZA, ex ARISTOTŒLE.

[p. 72] Galgulo magnitudo quanta fere turturi est: color luteus, lignipeta hic admodum est, magna'que ex parte macerie² pascitur, uoce emittit grandem, incola maximè Peloponefi hic auis est.


[p. 73] pici Martium retulit, sed caput reliquo corpori (fecus

¹ Hist. An. Bk viii. 44.
² Possibly a misprint for 'materie.'
³ Hist. An. Bk ix. 22. In his errata Turner alters λόλμας to χλόχμας, but evidently he means λόχμας.
Woodcocks are never seen with us save in the winter, wherefore I have naught to say about their young or mode of nesting. They are chiefly caught in England in the woods at daybreak and at dusk, by means of nets hung in some place devoid of trees, and dropped when the bird comes.

Of the Colius, or Galgulus, as Gaza renders it, from Aristotle.

Of the Galgulus the size is almost that of the Turtur: it is yellowish in colour, and hacks timber very much, and for the most part feeds on trees: it utters a loud cry. This bird is mainly an inhabitant of the Peloponnese.

All that Aristotle has so far attributed to the Colius or Galgulus is in agreement with the Huhol of the English and the Grunspecht of the Germans (if one may except its being chiefly an inhabitant of the Peloponnese). For it is nearly equal to the Turtle-Dove in size; it hacks the timber, hammers rotten wood, and utters a loud cry. But I give no decision here, I only ask. The Galgulus of Pliny is said to be called the Icteros in Greek, and if we trust to Theodorus [Gaza] is also the κελεδός of Aristotle. Though, on consulting the Greek text κολιῶς seemed to be one bird, and κελεός\(^1\) another, for the reading was:—κολιῶς ἐστὶ ξυλοκόπος σφόδρα, καὶ νέμεται ἐπὶ τῶν ξύλων τὰ πολλά. That is, the Colius is especially a wood-hunter and for the most part feeds on wood, ὅ μὲν γὰρ κελεός παρά ποταμὸν οἶκει καὶ λόχιας, which words Theodorus renders "around the thickets and the groves," but whether rightly so or otherwise I leave to be decided by the learned. In the Alps I saw sitting upon a fir a bird of the size of a Turtle-Dove, marked as it seemed with green patches on yellow, which to me in the whole aspect of the body called to mind the Picus Martius, save that its head was like in colour to the rest of its body.

\(^1\) Turner appears to have had a text with the word κελεός in one place instead of κολιῶς.
Colius, sive Galgulus—Graculi

atq; in pico sit) colore fuit simile, tibijs fuit breuisbus, et capite ereclo, & rostro longiusculo. An hac galguli species fuerit, nihil fiatuo, sed fuisset suspicor.

DE GRACVLIS.

Erasmus in eruditissimo adagiorum opero, quoties κόλονδος occurrit (occurrît ait non rarò) graculum reddit. Theodorum Gazam hac in re, licet alías libenter, minimè secutus, qui κόλονδον semper monedulam uertit. Ego quòq; hac in re Erasnum potius quàm Gazam, uariís de causís, imitari decreui:

**ARISTOTELES SECUNDÙM TRANSLATIONEM GAZÆ.**


[p. 74]  

Primum graculorum genus, quod Graeci κοράκιαν vocant, Plinio Pyrrhocorax est, Anglis a cornish choghe, Germanis eyn bergböl, cornice paulò minor est, rostro luteo, paruo, & in fine non nihil adunco, frequens est in alpibus, & apud Anglos in Cornubia, nocem habet monedula acutiorem, & magis querulam. Secundum genus λύκος και βωμολόχος, Graecè δίδυμ, Latinis propriè monedula, quasi monetula à moneta dicitur, quam sola autim, ut inquit Plinius, furatur. Aurum non omnia tria genera furantur, sed secundum genus tantûm, quare

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1 Hist. An. Bk IX. 100.
(otherwise than it is in Picus), and the legs were short, the head was upright, the beak rather long. As to whether this may have been a kind of Galgulus, I do not certify, but I suspect it to have been.

**Of the Graculi.**

Erasmus in his very learned work on Proverbs, as often as κολοίδος occurs (and it occurs not seldom) renders it by Graculus, in this thing following by no means Theodorus Gaza—though at other times he does so freely—who in every case renders κολοίδος by Monedula. And in this thing I also have determined for divers reasons here to imitate Erasmus rather than Gaza.

**Aristotle according to the translation of Gaza.**

Of Monedulae there are three sorts: the first, which is called Graculus, in size as big as Cornix with a curved red bill. The next, also named Lupus, small, and a mimic. The third, which is well known in Lydia and Phrygia, is web-footed.

Now the first kind of Graculi, which the Greeks call Κόρακις, is the Pyrrhocorax of Pliny and the Cornish Choghe of Englishmen, cyn bergdöl of the Germans. It is a little smaller than the Cornix, with a yellow bill, not large, and somewhat hooked towards the tip, it is abundant in the Alps and in Cornwall in England. It has a sharper and more querulous cry than the Monedula. The second sort called λύκος and βωμολόχος in Greek, is by the Latins strictly named Monedula, as if it were Monetula, from the Moneta [money] which alone of birds, as Pliny says, it steals. The three kinds do not all steal gold—only the second does—

1 Here there is an evident confusion between the Chough (*Pyrrhocorax graculus*) with its red bill, and the yellow-billed Alpine Chough (*P. alpinus*).
Graculi

secundum genus folum erit monedula, de cuius furacitatem pulchrè etià his uerfibus scribit Ouidius:

Mutata est in auem, quae nunc quoq: diligat aurum, Nigra pedes, nigris uelata monedula pennis.


1 Metamorph. Lib. VII. II. 467—8.
2 Bk VIII. 48.
wherefore this second kind alone shall be Monedula; moreover Ovid happily describes its thievish habits in the following lines:

> Was changed into a bird, which even now loves gold,  
> Monedula the black of foot, in plumage black arrayed.

The English call the Monedula a Cadoo, Chogh, or Ka; Germans eyn döl; and Saxons eyn älke. The Monedula is much smaller than the Pyrrhocorax, and nests in woods and hollow trees and towers of churches. The third kind is thus described by Aristotle in the eighth book of his History of Animals:

> Of web-footed birds the heavier haunt lakes and rivers, as the Anas, Phalaris, and Urinatrix. Add to these the Bosca, which is like the Anas but smaller, and that which is called Corvus, whose size is that of a Ciconia, but it has shorter legs; it is web-footed and a swimmer: black in colour, it perches on trees, and nests in them. So far Aristotle.

Unless I err, this Corvus is the Phalacrocorax of Pliny and the Swiss Waltrapus\(^1\), of which Pliny writes after this fashion:

> Further, the Attagen is caught in Gaul and Spain, and even on the Alps, where Phalacrocoraces also are, proper to the Balearic isles, as the Pyrrhocorax is to the Alps.

> And in another place of the same bird:

> Some animals are naturally bald, as Struthiocameli and Corvi Aquatici, whence is their name among the Greeks.

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\(^1\) Mr Rothschild identifies this bird with *Comatibis comata*=*C. eremita* (L.), no doubt rightly. See *Bull. Brit. Orn. Club*, xii. p. 56. *Novitates Zoologicae*, 1897, p. 371, and Pliny, Lib. x. cap. xlivii.
Graculi—Grus

Iam ut sciatis qualis nam avis sit Helvetiorum Vualtrapus, quam conijcio phalacrocoracem esse, & tertium genus graculi, avus est corpore longo, & cicionia paulo minore, cruribus breuisibus, sed craffis, rostro [p. 76] rutilo, parum adunco, & sex pollices longo, album quoque in capite maculum, & eam nudam, nisi natele memini, habuit. Si palmipes sit, & interdum natet, indubitante tertium graculorum genus esse adfirma-rem: iverum licet auem in manibus habuerim, an palmipes fuerit nec ne, & caluus, non memini: quare donec isīhæc certius nouero, nihil statuam.

Præter hæc tria graculorum genera ab Aristotele descripta, noui & quarto genus, quod in alpibus Rheticis uidi, Aristotelis lupo minus, nigrum & albis maculis per totum corpus, more fœundi distinctum, gar-ruitate superiora genera multum superans, femper in syluis & montibus degens: cui Rheti nucifragæ nomen, à nucibus quas rostro frangit & comedit, indiderunt.

DE GRVE.

Γεπανός, grus, Anglice a crane, Germanice eyn frän / oder eyn fränich.

Aristoteles1.

Alia de ultimis propè ueniunt, ut grues faciunt, quæ Scythicis ad paludes Aegypto2, unde Nilus profluit, ueniunt: quo in loco pug- [p. 77] nare cū pygmeis dicuntur. Non enim id fabula est, sed cereti genus tum hominum tum etiam equorum pufillum, ut dicitur est, degunt in cauernis, unde nomen troglodytæ, à fubeundis cauernis acceptere. Grues3 etiam multa prudenter faciunt: loca enim longinqua petunt, fui commodi gratia, & altè uolant, ut procul prospi-

1 Hist. An. Bk viii. 75—76.
2 A variant reading is τὰ ἄνω τῆς Αἰγύπτου.
3 Hist. An. Bk ix. 70.
And now, that you may know what sort of bird the Switzers' Waltrapus may be, which I conjecture is the Phalacrocorax, and the third kind of Graculus, it is a bird long in the body, which is rather less than that of the Ciconia, and the legs short but stout, the bill reddish, a little hooked, and six inches in length—further it had a white spot on the head, and that, unless my memory fails me, bare. If it be web-footed and swim at times, I should affirm that it undoubtedly was the third kind of Graculus; but, though I have myself had the bird in my hands, I do not now remember whether it was web-footed or not, nor whether it was bald. Wherefore I will determine nothing, until I shall have a surer knowledge of these things.

Besides the said three kinds of Graculi described by Aristotle I know a fourth, which I have seen upon the Rhaetic Alps, smaller than Aristotle's Lupus, black and marked with spots of white on the whole body, as a Starling is; it far surpasses all the above-named kinds in chattering; it always lives in woods and mountains. Now to this the Rhetians have given the name of Nucifraga, from the nuts which it breaks with its bill and eats.

**OF THE GRUS.**

Γερανός, grus, in English a crane, in German eyn krän, or eyn kränich.

**ARISTOTLE.**

Others come almost from earth's utmost parts, as do the Grues, which come from the Scythians to the Egyptian marshes, whence the Nile flows forth: in which place they are said to fight with Pygmies. And this is no mere fable, but assuredly there is, as it is said, a dwarf race both of men and horses, and they live in caves, whence they have got the name of Troglodyte, from dwelling in caves. The Grues furthermore do many things with prudence, for they seek for their convenience distant places, and fly high that they may look out far, and, if they shall
cere possint, & si nubes tempestatem'ue uiderint, conferunt fe in terrâ, & humi quiescût. Ducem etiam habent, & eos, qui clament, dispositi\footnote{1} in extremo agmine, ut uox percipi possit. Cum consístunt, cæteri dormiunt, capite subter alam condito, alternis pedibus insístentes. Dux décto capite, prospicit, & quod senferit, uoce significat.

Pipers. 

\textit{Vipiones Plin. dicuntur minores grues & iuniores}, [\textit{p. 78}] ut pipiones iuniores dicuntur columbae. \textit{Apud Anglos etiam nidulantur grues in locis palustribus, & earum pipiones sæpissime uidi, quod quidam extra Angliam nati, falsum esse contendunt.}

\textbf{DE HIRVNDINE.}

\textit{Xελιδόν, hirundo, Anglicè à suallouue, Germanicè eyn ñchwabl. Saxonibus est eyn ñwale.}

\textbf{ARISTOTELES\footnote{2}.}

Hirundo carnibus uescitur, bis in anno parit, & tota hyeme latet. Omnino ratio brutorum, magnâ refert uitæ humanæ similitudinem magis\footnote{3} in minori genere, quàm in maiore. uideris intelligentiæ rationem, quod primum in auium genere hirundo in effingendo cōstituendo\footnote{4} nido ostendit, confessit implicito luto, festucis ad normam lutariæ paleationis, & si quâdo luti inopia est, fe ipfa madefaciens, uolutat in pul-

\textit{uerem omnibus pennis. Stragulum etiam facit more hominum duriore primûm subijciens, & modicè totum consfternens, pro fui corporis magnitudine.}

\footnote{1} 'dispositi' is here apparently attracted to 'qui.'

\footnote{2} Four passages are incorporated in Turner's selection:—\textit{Hist. An.} Bk VIII. 39, Bk VI. 36, Bk VIII. 107 and Bk IX. 51, 52.
have seen clouds or a storm, betake themselves to earth, and take rest on the ground. They have a leader also and those who, disposed at each end of the band, may call out, that their voice may be perceived. The others sleep when they alight, with the head hidden underneath the wing, standing alternately on either foot. The leader gazes round him with uncovered head, and by his cry gives notice of whatever he perceives.

The smaller, that is younger, Cranes are called by Pliny Vipiones, as young Doves are known as Pipiones. Cranes, moreover, breed in England in marshy places, I myself have very often seen their pipers¹, though some people born away from England urge that this is false.

**OF THE HIRUNDO.**

Χελιδόνιον, hirundo, in English a swallowe, in German eyn schwalb. Among the Saxons it is eyn swale.

**ARISTOTLE.**

The Hirundo feeds on flesh, and lays eggs twice a year, for the whole winter also it lies hid. The way of brutes upon the whole bears a marked likeness to the life of man, and more so in the smaller than the larger kinds. One may observe the understanding way which the Hirundo foremost in the ranks of birds shews in the constitution and construction of its nest. It builds it by applying mud to straws, after the rule of daub and wattle work, and if there ever be a scarcity of mud, it wets itself and rolls itself in dust with all its feathers. It moreover makes a bedding after the manner of men, first laying a foundation of the harder stuff below, and moderately covering the whole in proportion to its size.

¹ Young pigeons are still called Pipers in England.
Hirundo

Plinius 1.

Hirundines luto construunt, stramento roborant. Si quando inopia est luti, madefactum multa aqua pennis puluerem spargunt. Ipsum uerò nidum mollibus plumis floccis& conserunt, tepefaciendis ouis, simul ne durus sit infantibus pullis.


Tertium. Tertium hirundinum genus est, quae ripas excauant, atque ita internidificant. Non faciunt hæ nidos, migratq multis diebus antè, si futurum est, ut auctus amnis attingat.

De apoDibus, ex Aristotelē 2.


1 Hist. Nat. Lib. x. cap. xxxiii.
3 κακότρωδες in the Greek.
4 These two words are probably interpolated.
Hirundo

Pliny.

Hirundines build nests of mud, and strengthen them with straw. And if there ever be a scarcity of mud, they sprinkle a good store of water from their feathers on the dust, which is thus moistened. The nest itself they further line throughout with soft feathers and wool, to thus keep the eggs warm, and also that it may not be too hard for the young chicks.

There is another sort of the Hirundines of the country and the fields, which rarely build their nests in houses, different in shape, but of the same material, and facing wholly upwards, having entrances prolonged into a strait with a capacious belly; it is wonderful how skilfully they are adapted for concealing young, and soft for them to lie upon.

There is a third kind of Hirundines which bore in banks, and thus breed within holes. These make no nests, and migrate many days before, if it be likely that the stream in flood should reach them.

Of the Apodes, from Aristotle.

Some birds are weak-footed, and for that reason from the smallness of their feet are known as Apodes. This kind of little bird is very strong upon the wing, just as some others that are nearly like it seem to lose in strength of foot proportionately as they gain in power of flight, as the Hirundo and the Falcula, in other words Riparia. For all these in their habits, flight, and look seem very near each other. The Apes may be seen at all times of the year, but the Riparia only in summer, when the rains begin: for then it is both noticed and is caught. In

1 Pliny evidently refers to Hirundo rufula, which builds a flask-shaped nest against a cliff.
deniq rara hæc auicula est. Apodes\(^1\), quos aliq cypsellos uocant, similes esse hirūdinum, iam dictum est: haud enim ab hirundine dicerni possunt, nisi quòd tibijs sunt hirisus. Nidum specie cistellæ\(^2\) productæ lōgius fictæ ex luto, imò aditu dato arctissimo faciunt, idò locis angußtis\(^3\), intrà faxa & specus, ut & belluas, & homines possint deuitare.

**PLINIUS\(^4\).**


\(^1\) Hist. An. Bk IX. 108.  
\(^2\) χυψόεων is the word in Greek.  
\(^3\) οτενφ; another reading is οτενφ = under cover.  
\(^4\) Hist. Nat. Lib. x. cap. xxxix.
Hirundo

short this little bird is rare. The Apodes, which some call Cypselli, are like Hirundines, as has been said before, for they are not to be distinguished from the Hirundo, save by having hairy legs. The nest which they construct looks like a little basket formed of mud somewhat drawn out, an entrance of the straitest opening beneath; and this they place in cracks within the rocks and caves, that they may avoid both beasts and men.

Pliny.

The birds which, because they cannot use their feet, are called Apodes, live chiefly on the wing. They are named Cypselli by some, in aspect they are like Hirundines. They nest in crags. These are they which are seen on all parts of the sea, nor do ships ever leave the land upon so long or so continuous a course but that the Apodes still fly around them. The other kinds alight and settle, but for these there is no rest save in their nests alone, they either hang or lie. So far Pliny and Aristotle.

Now Aristotle makes only three kinds of Hirundines, those of the house, the Apodes and the Falculæ. Yet Pliny seems to make four kinds, those of the house, the Rusticae, the Apodes, and the Ripariae. If that be true, our House Swallows, well known from their blood-coloured breast, will be the first-named kind. Those very large and black Swallows, that mostly fly in flocks, appear to form the second kind. Those Swallows which make nests upon the tops of towers, and in lofty church windows, constitute the third. And the Ripariae or Falculæ will be the fourth. But should the said division not approve itself, then to the first-named kind may be referred those Swallows which invariably build on the houses of the country people. Two patches of a blood colour, which one may see on each side
macula, quas utrinque in pectore uides, distinguunt, quod Ouidius\textsuperscript{1} his ueribus pulchre ostendit:

[p. 83] Altera tecla subit, nec adhuc de pectore cadit
Excessere notae, signataque fanguine pluma est.

Hoc primum genus Angli a suavellouu nominat & Germani eum schwab.

Apodes.

Secundum genus faciunt apodes tam maiores quam

maiores uoco maximas illas hirundines, regatim & aliiuis ceteris volantes, qua in arbo, more

hirundinum aliarum nunquam consiicere uisuntur. minores uoco, qua in scopulis, templorum fenestris editioribus & summis turribus nidos figunt. Maiores Germani uocant genit swalben, Angli the great suavelloues. Minores Angli uocant rok martinettes or chirche martnettes, Germani uocant firch swalben.

Tertium genus, quod in ripis nidulatur, Angli a

bank martuet\textsuperscript{2}, Germani eum über\textsuperscript{3} swalbe, aut speiren nominant.

DE HÆMATOPODIBUS, EX PLINIO\textsuperscript{4}.

Rostrum & prælonga crura rubra hæmoto-
podi\textsuperscript{5} funt, multò Porphyrione minori: quàquam

Erect apud Anglos in locis palustribus avis quædam longis & rubris cruribus, nostra lingua redshana diçta, cui an descriptio hæmotopodis Pliniiani conueniat necne, qui apud Anglos degunt, inuelseint & examinent.

DE IVNCONE.

ΣΧΩΙΝΙΚΛΩΣ, innco, Anglicè a rede sparrouu, Ger-

manicè eyn rebyt muß. Innco, ut scribit Arístoteles oçlauo

hjflorix animalium, & capite tertio, ad ripas lacuum &

fluminum uiiïiat, & caudam frequenter motitat, & ex

eodem confatat, auem esse paruam: nam turdo minorem

\textsuperscript{1} Metam. Lib. vii. li. 669—70. \textsuperscript{2} A misprint for 'martnet.' \textsuperscript{3} A misprint for 'üfer.' \textsuperscript{4} Hist. Nat. Lib. x. cap. xlvii. \textsuperscript{5} Another reading is 'Himantopus,' but the Stilt-Plover has not a red bill.
of the breast, distinguish these from the remaining sorts, as Ovid prettily sets forth in these verses:

"The other haunts our roofs, nor have the marks of slaughter yet departed from its breast, and its plumage is stained with blood."

The English call this first kind a Swallow, and the Germans eyn schwalb.

The Apodes, the greater and the less, compose the second kind. I call greater those very great Swallows that fly in flocks, and higher than the rest, which are never observed to settle on a tree, after the manner of our other Swallows. I call less those which fix their nests to rocks, lofty church windows and the tops of towers. The greater kind the Germans call geyr swalben, and the English the Great Swallowes; but the less the English call rok martinettes or chirche martnettes, the Germans kirch swalben.

The third kind, that which breeds in banks, the English name a bank martnet, the Germans eyn -validator swalbe or speiren.

**Of the Hæmatopodes, from Pliny.**

The Hæmatopus has its bill and very long legs red, and is much less than the Porphyrio, though of the same height of leg. It is native in Egypt. It stands on three toes to a foot; flies are its favourite food. It lives in Italy but a few days.

There is in marshy places in England a certain bird with long red legs, called Redshank in our tongue, but whether the description of the Hæmatopus of Pliny agrees with this or not let those who live in England seek out and enquire.

**Of the Junco.**

Σχοίνκλος, junco, in English a rede sparrow, in German eyn reydt måss.

The Junco, as Aristotle writes in the eighth book of his History of Animals, and in the third chapter, lives on the banks of lakes and streams, and flirts its tail continually; and it is clear from him that it is a small bird, for he makes
facit. Ego igitur quum nullam aliam noverim auriculam, iuncis & harundinibus insidentem, praeter Anglorum passarem harudinarium, illum iunconem esse iudico. Avis est parva, passere paulo minor, cauda longiuscula & capite nigro. cætera fusca.

DE LINGULACA, EX ARISTOTELE¹.

Lingulaca, quæ Græcè γαλαγός dicitur lin-[p. 85]guam exercit longam, unde nomē habet, una est è coturnicum ducibus, formam habet avium lacustrium.

DE LAGOPODE EX PLINIO².

Præcipuo fapore lagopus est: pedes leporino uillo ei nomen hoc dedère. Cætero candide³, columbarum magnitudine, non extra terram⁴, in qua nascitur, eam uesci: quando nec uiua manfuecit, & corpus oculo, statim marcescit. Est & alia, nomine eodem, à coturnicibis magnitudine tantüm differens, croceo tintu cibus

† gratissima. †aptissima. Huius hoc uerfu Martialis⁵ meminit:

Si meus aurita gaudet lagopede Flaccus.

DE LIGVRINO SIVE SPINO.

Ἀκανθὶς, spinus, suæ ligurinus, Anglicè, a græne finche, ut conijcio, Germanicè, eyn firéfinche.

ARISTOTELES⁶.

[p. 86] Ligurini, & uita & colore ignobiles sunt, sed ualent uocis amœnitate⁷, & ex avium albo sunt, quæ carduorum femine uescuntur⁸. Florus, spinus, & ægithus, odium inter fe exercēt. Spinus etiam bellum cum asino gerit.

¹ Hist. An. Bk VIII. 83.
³ After ‘dedere’ substitute a comma for the full stop.
⁴ Pliny seems to have written ‘facile’ here, in addition.
⁵ Epigr. Lib. vii. lxxvi.
⁶ Three passages are here combined:—Hist. An. VIII. 42, IX. 22, IX. 92.
⁷ The words of Aristotle are φωνὴν μὲντοι λεγομέν μὲνταν ἔχουσιν.
⁸ See p. 35.
it less than a Turdus. Therefore, since I know no other little bird which sits upon the rushes and the reeds, save the Reed Sparrow of the English, I believe that kind to be the Junco. Now this bird is small, a little smaller than a Sparrow, with a longish tail, and a black head. The other parts are brown.

Of the Lingulaca, from Aristotle.

Lingulaca, in Greek called γλωττίς, puts forth a long tongue, whence comes its name; it is one of the leaders of Coturnices, it has the form of a lake-haunting bird.

Of the Lagopus, from Pliny.

The Lagopus is in flavour excellent, its feet shaggy as in a hare have given it this name. Otherwise it is white, in size as the Columbi; it is not eaten except in the land of which it is a native, since it is not tameable while living, and when killed its flesh soon putrefies. There is another bird of the same name, differing but in size from the Coturnices, most excellent for food with yellow saffron sauce.

Of this Martial makes mention in the following verse:

If my Flaccus delights in the eared lagopes.

Of the Ligurinus or Spinus.

'Ακανθίς, spinus, or ligurinus, in English a grene finche, as I suppose, in German cyn kirsfincke.

Aristotle.

The Ligurini, commonplace in mode of life and colour, yet excel in pleasantness of song. And they are of the list of birds which feed on thistle-seed. The Florus, the Spinus, and the Αἰγίθος shew mutual dislike. The Spinus wages war moreover with the Ass.
Spinum Aristotelis grenesincam nostram esse arbitrav: nam illa inter spinas plurimum degit, & ex herbarum feminibus uiuïtat. Auis, quam spinum esse iudico, magnitudine passerem aequal, tota uiridis est, præsertim mas in hoc genere, feminæ ferè pallida est. uescitur carduorum maiorum femine & lapparum, ut auriiuittis minorum, nidulatur in ramis falicu aut prunorum sylvestriu. cantat amænè, & cibum & potu ë fitulis haurire non recusat.

Sed obijcet mihi forsan quispiam, hanc colore uiridi adeoqi, amæno, non posse spinum esse, quem Aristoteles colore ignobilem esse testatur. Sciat uelim, qui hoc mihi obijcit, eundem Aristotelem uiridem colorum damnare, etiam in aue, quæ tota uiridis est, & ë uiriditate nomen accept. Verba Aristotelis¹ hec sunt: Vireo², qui totus uiridis est, docilis & ad uite munera [p. 87] ingeniosus notatur, sed malè uolat, nec grati est coloris. Hec Aristoteles.

DE LVTEA.

Χλωρευς, luteus fine lutea, Anglice a yelou w ham, a youulryng. Germanice eyn geelgrit.

ARISTOTELES.


¹ Hist. An. Bk IX. 98, 89.
² Χλωρίων.
I think that Aristotle's Spinus is our Grenefinc, for it lives for the most part among thorns, and feeds upon the seeds of grasses. The bird which I believe to be the Spinus in its size equals a Sparrow, and is wholly green, and in this kind the male especially, the female being somewhat pale. It feeds upon the seeds of bigger thistles and of burdocks, as the Aurivittis does upon the smaller; and it nests on branches of the willow or wild plum. It is a pleasant songster, and does not refuse to draw its food and water up in little buckets.

But some one may perhaps object to me that this bird with its green and somewhat pretty colour cannot be the Spinus, inasmuch as Aristotle testifies that it is commonplace in colour. I should like the man who thus objects to me to know that Aristotle equally condemns green colour even in a bird which is entirely green, and from its greenness has received its name. These are the words of Aristotle:

"The Vireo, which is entirely green, is singled out as easy to be taught, and clever for the business of life; but it flies badly and its colour is unpleasing."

So far Aristotle.

**OF THE LUTEA.**

Χλωρεύς¹, luteus or lutea, in English a yelovv ham, a yowlryng, in German eyn geelgorst.

**ARISTOTLE.**

The Luteus, so named from the pale colour of its lower parts, is of the size of an Alauda. And it lays four eggs, or even five. It builds itself a nest of comfrey torn up by the roots, but spreads within a covering of wool and hair.

¹ Aristotle in his *History of Animals* mentions three birds, χλωρίς, χλωρίων, and χλωρεύς: but Turner's quotation with regard to χλωρεύς is found in Aristotle under χλωρίς in a passage (*Hist. An.* Bk IX. 83) where there seems to be no alternative reading.
Auicula, quam luteum esse credo, passer paulo maior est. Maris peclius & uenter lutea sunt: femineae uerd peclius luteum, & uenter pallidus est, in capite dorfo & alis, pennis fuscis luteae intermiscuntur. Rostrum utrique firmum & breue, in quo tubercum quoddam dentem mentiens, reperias, praeter uermes, hordeo & auena libenter uescitur. Cauda huius auiculae longiuscula est, & frequenter motitans.

DE LVTEOLA.

Χλώρις, luteola, Anglice a fiskin, Germanice eyn [p. 88] jevijich, quibusdam eyn engelchen.

Luteola, lutea superius descripta, multo minor est, & colore ad uviditatem magis tendente, peclore luteo est, & rostro longiusculo, tenue & acuto, auriiuittis simili, duas habet maculas nigras: alteram in fronte, alteram sub mento, cantillat non infuauiter. Rara apud Anglos hoc est, nec uspiam ferè alibi quàm in caueis cernitur. Semel tamen in Cantabrigianis agris uideisse recordor. Huius generis sunt, quas Anglia uaes canarias uocat.

DE LVSCINIA.

Λυσκίνια, luscinia, philomela, Anglice a nyghtyngall, Germanicè eyn nachtgàl.

Aristoteles 1.

Parit luscinia æstate quinqu aut sex oua, conditur ab autumno usq ad uernos dies, luscinia 2 canere folet assiduo diebus ac noctibus quindecim, cum fylua 3 fronde incipit opacari, dein canit quidem, sed non assiduo, mox adulta æstate uocem mittit diuerfam, nò infuper ua-[p. 89] riam, aut celerem 4 modulatam, sed simplicem,

3 Aristotle has δρός (mountain) here.
4 Or τραχίων = harsh.
The little bird, which I believe to be the Luteus, is somewhat bigger than a Sparrow. It is yellow on the breast and belly in the cock; but in the hen the breast is yellow and the belly pale. Yellow are mixed with dark feathers upon the head, back, and wings. In each of them the beak is short and stout, and on it one may find a sort of knob that simulates a tooth. Apart from worms it eats barley and oats freely. The tail of this small bird is rather long and is in constant motion.

**Of the Luteola.**

Χλωρίς, luteola, in English a siskin, in German eyn zey-sich, or of some eyn engelchen.

The Luteola is much smaller than the Lutea above described, and with a colour tending more to green. It has a yellow breast, a longish, slender, pointed bill, like that in Aurivittis, and two spots of black, one on the forehead, one beneath the chin; it warbles with some sweetness. In England it is rare, and scarcely to be seen elsewhere than in cages. Yet I remember having seen it once among the fields of Cambridgeshire. Of this kind are those which England calls Canary birds.

**Of the Luscinia.**

Ἄνθων, luscinia, philomela, in English a nyghtyngall, in German eyn nachtgäll.

**Aristotle.**

In summer the Luscinia lays five or six eggs, but from autumn it lies hid continually until the days of spring. Now the Luscinia is wont to sing incessantly for fifteen days and nights, when woods begin to become dark with foliage. Later it sings indeed, but not incessantly, then in the height of summer it gives forth a different note, not varied over and above, or quick and modulated, but a simple

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1 Gesner, the first to describe the Canary-bird, states that Turner informed him of it.
Luscinia—Mergus

colore etiam immutatur, & quidem in terra Italia per id tempus alio nomine appellatur, apparent non diu, abdit enim se & latet.

Aristoteles prater unam notam nullam ostendit peculiarem, qua ab aliis auibus luscinia differret, ea autem est quod lingua summae acumine careat. Quanquam & hoc etiam cum atricapilla commune habet. Colore luscinia, & corporis magnitudine auiculam illam proximè refert, quam Angli lingettam, & Germani passarem gramineum nominant. Passer paulò minor est, & tenuior, & longiori corporis figura, color pectoris ferè cinereus est, cætera subfusca.

DE MERGO.

Aithvia, mergus, Anglice a cormorant, German. eyn bücher.

Aristoteles¹.


Mergus, auis est magnitudine ferè anseris pulla, rostro longo & in fine adunco, palmipes est, & corpore graui, forma corporis auui sedenti, erecta est. Plinius in arboribus nidulari scribit, at Aristoteles in faxis maritimis. Quod uterq; aut uidit, aut à referentibus au cupidibus didicit, scripto mandavit. Et ego utrumque observavi, nam in rupibus marinis iuxta hostium Tinnie fluuijs mergos nidulantes uidi, & in Northfocilia cum

¹ Hist. An. Bk i. 6; Bk viii. 48, freely rendered.
sound. It also changes colour, and during that time is known, at least in the land of Italy, by another name; it is not seen for long, since it conceals itself, and so lies hidden.

Aristotle provides no special mark, save one, by which the Luscinia differs from the rest of birds, and that is that it lacks the point at the tip of the tongue. Though even this it has in common with the Atricapilla. In colour and in size of body the Luscinia comes nearest to that little bird which Englishmen call Lingett and the Germans Grass-Sparrow. It is a little smaller than a Sparrow and more slender, with a longer shape of body, and the colour of the breast is nearly grey; the other parts are brownish.

OF THE MERGUS.

Ἄθουρα, mergus, in English a cormorant, in German eyn dücher.

ARISTOTLE.

The Mergus is a sea-bird, and it lives by hunting fishes, yet it makes its way somewhat far up the rivers. The Mergus and the Gavia lay two or three eggs each upon rocks in the sea, the Gaviae in summer and the Mergi when the spring arrives after the solstice. They incubate like other birds, but neither of these birds conceals itself.

The Mergus, a sad-coloured bird, is nearly equal to a Goose in size, with the bill long and hooked at the end; it is web-footed, heavy in the body, and the attitude is upright in the sitting bird. Pliny writes that it nests on trees, but Aristotle says on sea-rocks. What each man saw or learnt from the reports of bird-catchers he has set down in writing. And I have observed both birds myself, for I have seen Mergi nesting on sea-cliffs about the mouth of the Tyne river, and on lofty trees in Norfolk with the
Mergus—Merops

ardeis in excelsis arboribus. Qui in rupibus maritimis nidiscant, ex praeda marina ferè usit, qui uerò in
arboribus, amnes, lacus, & fluuios, uictus causa petunt.

DE merope ex Aristotele\(^1\).

Merops.

Sunt, qui meropes genitorum fuorum senectutem educare confirmant, uicem\(\) reddi, ut pa-
rentes non modò fenescentes, uerùm etià cùm
iam datur facultas, alantur opera liberorum:
nec matrem aut patrem exire, sed in cubili
manentes, paschi labore eorum, quos ipsi genvner-
unt, enuiterunt, educantur. Pennæ huius
auis inferiores pallide sunt, superiores cœruleæ
sunt ut halcyonis: postremæ pinnulce rubrè
habentur. Parit sex aut septem æstate in præ-
cipitijs mollioribus, intrà uel ad quatuor cubita
fubiès, terræ etià caueruas fubiens, cunabula
facit.

Plinius\(^2\).

Nec uerò ijs minor folertia, quæ cunabula in
terra faciunt, corporis grauitate prohibente sub-
lime petere. Merops uocatur, genitores fuos
reconditos pascerns, pallido intus colore penna-
rum, superne cyaneo, priori subrutilo. Nidi-
facit in specu, fex pedum desoffa altitudine.

Meropem ingennè fateor me nunquam uidisse, nec
quièquam consenisse, qui aliquando uiderrit. Tametis non
sum nescius apud Germanos, grammaticos non indocitos,
esse, qui grunspchtem suum, meropem esse doceant: sed
Aristotele & Plin. reclamantibus. Picus uiridis nidum

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\(^1\) Hist. An. Bk IX. 82, freely rendered. 
\(^2\) Hist. Nat. Lib. x. cap. xxxiii.
Herons\(^1\). Such as make their nests on sea-cliffs generally live on prey from the sea, but such as breed on trees seek rivers, lakes, and streams to get their food.

**Of the Merops, from Aristotle.**

There are some who insist that Meropes foster the old age of their parents and thus take their turn, so that the parents not in age alone are nourished by the labour of their offspring, but as soon as power is given to these: that neither does the mother-bird fare forth nor yet the father, but they stay within a resting place and are fed by the aid of those which they themselves have bred, nourished and reared. The plumage of this bird is pale beneath, but blue above like that in Halcyon: the pinnules at the end of the wings are reckoned red. It lays six or seven eggs in summer in the softer banks, and makes its nurseries by boring into these for quite four cubits, and it also uses hollows in the soil.

**Pliny.**

Nor truly is less skill shewn by those birds which make their nurseries in the soil, since the weight of their bodies hinders them from mounting to a height. The kind called Merops feeds its parents in retreat; the colour of its feathers underneath is pale, the upper surface blue, the former being somewhat red. It breeds within a hole, bored out six feet in depth.

In fairness I admit that I have never seen the Merops, nor have I met anyone who ever saw it. Still I am not unaware that there are not unlearned schoolmasters among the Germans, who would teach us that their grunspecht is the Merops, though against the sense of Aristotle and Pliny.

\(^1\) Compare with this Sir T. Browne’s *Notes and Letters on the Natural History of Norfolk* (ed. Southwell) p. 11 (1902).
fibi rostro suo in arboribus facit: ubi enim picus arborum
tundès, illum ex fono subeauam esse deprehendit, in-
flante tempore partus, eam in qua posseu nidulaturus est, rostro perforat. Nulla uspiam arbor tam alta est, quam
impediente ulla corporis gravitate, non volatu traiicere
posset. Pennæ huius quoque superiores sunt uirides,
inferioresq; nisi malè memini, luteæ aut saltem pallidæ
sunt. quare quum merops prohibente corporis gravitate,
in subline petere, atq; ideò in arboribusnidulari non
posset, & superne colore sit cyaneo, Germanorum picus
uiridis, quem Brizianni à faciendis foraminibus, huolo-
lam nominant, merops Aristotelis & Pliniij esse non
poterit.

DE MERULA.

Koττυφός¹, merula, Anglice a blak ofel, a blak byrd,
Germanicè eyn merl, aut eyn amfel.

Aristoteles².

Merularum duo sunt genera: alterum nigrum & uulgare: alterum candidum, magnitudine
quidem compari, & uoce simili, sed circa Cyle-
nam Arcadiæfamiliares, nec uqūa alibi nascens.
Eft etiam ex hoc genere, quæ similis nigræ est, 
seu fusca colore, & magnitudine paulo minor,
uerfari hæc in faxis & tectis folita est, nec
rostrum rutilum, ut merula habet. Merula³
etiam & colore, & uoce per tempora immutatur.
Nam ex nigra redditur rufa, & uocem emittit
dierfam. Strepitat enim per hyemem, quum
per æstatem tumultuans cantet.

Plinius⁴.

Merula, ex nigra ruffescit, canit æstate,
[p. 94] hyeme balbutit, circa solstitium muta, rostrum

¹ A misprint for κόττυφος.
² Hist. An. Bk IX. 95.
³ Hist. An. Bk IX. 254; freely rendered.
Now the Green Picus makes itself a nest with its own bill in trees: for when a Picus hammering on a tree discovers by the sound that it is hollow at the core, the breeding season being close at hand, it bores that with its bill in which it afterwards intends to nest. There is not anywhere a tree so tall which this bird cannot reach by means of flight, for any weight of body that it has. Its plumage is moreover green above and, if my memory serves me, yellow underneath, or pale at least. Since then the Merops, hindered by its weight of body is incapable of rising to a height, and thus of making nests in trees, and has blue upper parts, the grunspecht of the Germans, which the Britons from the holes it makes call huhol [that is, Hew-hole], cannot be the Merops known to Aristotle and Pliny.

OF THE MERULA.

Κόπτυφος, merula, in English a blak osel, a blak byrd, in German eyn merl or eyn amsel.

ARISTOTLE.

Of Merulae there are two sorts, one black and common, and the other white, of equal size indeed and having a like voice, but which is well-known round Cyllene in Arcadia, and not bred elsewhere. There is of this kind another also, which is like the black, but dull in colour and a little less in size. It usually haunts rocks and roofs, but has not the bill ruddy like the Merula. The Merula in colour and in voice moreover changes with the season, for it turns from black to Rufous, and utters a different cry. For it chatters in winter, but sings lustily in summer.¹

PLINY.

From black the Merula turns Rufous, in summer it sings, but in winter it babbles, and about the solstice

¹ The readings in Aristotle differ considerably. ‘Sings lustily’ may go with ‘in winter.’
Merula—Milvus—Molliceps

quoq anniculis in ebur transfiguratur, dūtaxat maribus.

DE MILVO SIVE
milvio.

ικτίνος, milvus, Anglicē, a glede, a puttok, a kyte, Germanicē eyn weye.

Plinius¹.

Milui ex accipitrū genere sunt, magnitudine differentes. Idem uidentur artem gubernandi docuiffe, caude flexibus, in cælo monfrante natura, quod opus esset in profundo. Milui & ipī hybernis mensibus latent, non tamen ante hirundines abeuntes. Traduntur & solstitijs affici podagra.

Aristoteles².


DE MOLLICIPITE.

Μαλακοκρανέυς, molliceps, Anglicē a shrike, a nyn murder, Germanicē eyn mui mûrder.

Aristoteles⁴.

Molliceps codem in loco semper fibi sedem flatuit, atque ibidem captur. Grādi & cartila-

¹ Hist. Nat. Lib. x. cap. x.
³ Other readings are αἰγώλιος and ἐγώλιος.
⁴ Hist. An. Bk ix. 98.
it is dumb. In yearlings furthermore the bill puts on a look of ivory, provided they are males.

Of the Milvus or Milvius.

ἔκτιφος, milvus, in English a glede, a puttok, a kyte, in German eyn weye.

Pliny.

Milvi are of the race of Accipitres, though differing in size. They seem, moreover, to have taught mankind the art of steering, by the turning of the tail, nature thus shewing in the sky what might be useful in the sea. Milvi lie hidden in the winter months, yet not until Hirundines depart. They are reported also to be affected with the gout about the solstice.

Aristotle.

Milvi lay for the most part two eggs each, but sometimes three, and hatch as many young. But that kind which is named Ætolian at times lays even four.

I know two sorts of Kites, the greater and the less; the greater is in colour nearly rufous, and in England is abundant and remarkably rapacious. This kind is wont to snatch food out of children's hands, in our cities and towns. The other kind is smaller, blacker, and more rarely haunts cities. This I do not remember to have seen in England, though in Germany most frequently.

Of the Molliceps.

Μαλακοκρανεύς, molliceps, in English a shrike, a nyn murder, in German eyn nün mürdër.

Aristotle.

The Molliceps invariably takes its stand in the same place, and thereat it is caught. It has a big
Molliceps
gineo capite est, magnitudine paulô minor quà turdus, ore firmo, paruo, rotûdo, colore totus cinereo depes\(^1\), & pennis inualens est, capitur maximè noctua.


[p. 96] syluestris interdum ingulare, & cornices in fugam aû-gere. Aues, quas occidit, non unguibus, ut accipitres, notando pernicier adsequitur, sed ex insidijs adoritur, & max (quod iam sepius expertus sum) ingulum petit, & cranium rostro comprimit & confringit. Offa comminuta & contusa deuorat: & quando ejurit, tantos carnis bolos in gulam ingerit, quantos riclus oris angusìa poëst capere. Preter morem etiam reliquarum auium, quando uberior praedà contiguit, nonnihil in fu-

\(^1\) ἀποια. Another reading is εὐπόια.
and gristly head, and is a little smaller than a Thrush in size; the bill is strong but small, and curved; in colour it is wholly grey, while it is weak-footed and feeble on the wing, it is caught chiefly by the Noctua.

The Molliceps I think to be that little bird which Germans call nuinmurther, not without a cause. Further that it may be quite clear to all which and what sort of bird it really is, I will touch on its form and habits as compendiously as may be. In size it equals the least of the Thrushes, and to one observing from afar seems wholly grey. And yet, to one inspecting it more nearly, the chin, the breast and belly appear white, and from each eye there reaches to the neck, although somewhat oblique, a long black patch. It has so big a head that (were the bill longer and larger) it assuredly would answer in proportion for a bird of thrice its size. The bill is black and moderately short, and hooked at the tip, but is the stoutest and strongest of all, so much so that the bird once wounded my hand, although protected by a double glove, and very speedily it crushes and breaks up the bones and skulls of birds. Each wing is wholly black, except that a white line of some size marks transversely the middle of the wing on either side. The tail is like that of a Pie, that is to say, longish and particoloured. Of all it has the shortest legs and feet proportionately to its body, and these parts are black. It has short wings, and flies as if by bounds upwards and downwards. It lives on beetles, butterflies, and biggish insects, and not only these, but also birds after the manner of a Hawk. For it kills Reguli and Finches and (as once I saw) Thrushes; and bird-catchers even report that it from time to time slays certain woodland Pies, and can put Crows to flight. It does not seize the birds it kills with its claws, after a swift flight, as Hawks do, but attacks them stealthily and soon (as I have often had experience) aims at the throat and with its beak squeezes and breaks the skull. Then it devours the crushed and bruised bones, and when anhungered crams into its gullet lumps of flesh as big as the gape's narrowness can take. Again, beyond the habit of the rest of birds, when prey happens to be more plentiful, it lays by some for future scarcity.
Molliceps—Noctua—Olor


DE NOCTVA.

Γλαύξ, noctua, Anglice an ouul, or an houulet, [p. 98] Germanicē eyn eul & eyn üle Saxonicē.

ARISTOTELES 1.


DE OLORE.

Kuêvodos, oror, Anglica a suan, Germanicē eyn īvān.

ARISTOTELES 5.

Olores palmides funt, apud lacus & paludes uiuentes, qui nec probitate uiōtus, morum, pro-[p. 99] lis, feneçtutis uacant 7. Aquilam si plgnam

1 Hist. An. Bk IX. 122.
2 Apparently a misprint for cicuniae, said to mean 'horned owls.' Aristotle has νυκτικόρακες which he identifies in Bk VIII. 84 with ὄροι.
4 Aristotle has τιλλουσῖ = pluck it.
5 Hist. An. Bk IX. 78.
6 That is, palmipedes.
7 Aristotle has εὐβιωτοὶ δὲ καὶ εὖθετις καὶ εὐτεκνοὶ καὶ εὐγνοροῖ.
For it impales and hangs the bigger flies and insects on the thorns and spines of shrubs, so soon as they are caught: of all birds it is tamed most easily, and when accustomed to the hand is fed on meat, and, should this happen to be somewhat dry or altogether bloodless, it requires drink. In England I have never seen it oftener than twice, although most frequently in Germany. Among our people I have found no one who knew its name, except Sir Francis Lovell, that most noble knight, endowed with equal gifts of mind and body. Now if Aristotle's description of the Molliceps does not appear to any one in all points to agree with this let him ascribe it to the list of the Tyranni, or shew us a bird, which the description fits better than this.

OF THE NOCTUA.

Γλαυξ, noctua, in English an owl or an howlet, in German eyn eul, and in Saxon eyn ûle.

ARISTOTLE.

The Noctuae, Cicumae and the rest, which cannot see by day, obtain their food by seeking it at night: and yet they do not do this all night long, only at eventide and dawn. They hunt moreover mice, lizards, and scorpions, and small beasts of the like kind. All other birds flock round the Noctua, or, as men say “admire,” and flying at it buffet it. Wherefore this being its nature¹, fowlers catch with it many and different kinds of little birds.

OF THE OLR.

Kύκνος, olor, in English a swan, in German eyn swän.

ARISTOTLE.

Olores are web-footed, and they live on lakes and marshes; they get food with ease, are peaceable, prolific and attain to a great age. They repulse the

¹ Or, possibly, 'the bird being set down on the ground.'
Olor—Onocrotalus


Si quis olorem nunquam uiderit, & ex hac Aristotelis descriptione non satis qualis sit uis didicerit, sciat auem esse albam, uenere multō maiorem, forma tamen & uiśtu similem, pedibus nigris, & rostro parum turbinato, colore rutilo, in cuius summa parte, qua capiti committitur, nigerrimum tuberculum, atque id rotundum, & in rostrum sēs inflecēns, exīgit.

DE ONOCRATALO.

Onocrotalus.  Sunt hodie non parūm multi eruditione inter omnes conspicui, qui grandisonam illum lacuifrem auem, Anglis buttoram & Germanis pittoorum, & rostrorum nücatam, Onocroatulum esse contendant. Quorum ego sētentiae lubens subscriberem, (pulchrē enim cum uoce uis nominis etymologia conuenit:) nisi Pliniō autoritas de onocrotalo ad hunc modum scribentis, non diffuaderet. Onocrotali, inquit, olorum similitudinem habent, nec distare uidentur omnino, nisi faucibus ipsīs inesse, alterius uteri genus. hoc omnia inexplebile animal congerit, mira ut sit capacitas, mox perfecta rapina, sēnсим inde in os reddita, in ueram aluim ruminantis modo refert. Gallia hos septentrionalis, proximē cē oceano mit- tit. Hac Pliniō est.

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1 This should apparently be 'proxima,' as some texts have it.
Aquila successfully, should he begin a fight; and yet, unless provoked, never induce the fight. These birds are wont to sing even when just about to die. They also fly afar over the main, and men ere now, who have been sailing on the African sea have met with many singing mournfully and seen some of them die.

Should any one have never seen a Swan, nor learnt sufficiently what sort of bird it be from this account of Aristotle, let him know that it is a white bird, much bigger than a Goose, though like in form and feeding; with black feet, and a bill hardly spindle-shaped, reddish in colour; on the highest part of which, where it adjoins the head, stands forth a very black and rounded knob, sloping towards the bill.

**OF THE ONOCROTALUS.**

There are many to-day conspicuous among all for learning to no small degree who maintain that the loud-sounding lacustrine bird, called Buttor by the English, and Pittour or Rosdomm by the Germans, is the Onocrotalus. To whose opinion I would willingly subscribe, (the more so as the etymology of the bird's name agrees well with its voice,) did not the authority of Pliny writing of the Onocrotalus after this manner dissuade me therefrom.

The Onocrotali, he says, have a similitude to the Olores, and they do not seem to differ in any way, save that there is a kind of second belly in the very jaws. Herein the insatiable animal crams everything at once, so marvellous is its capacity, and presently, the plundering complete, it gradually returns all to the mouth, and thence transfers it to the real belly in the manner of a ruminant. Northern Gaul, where nearest to the ocean, sends us these. So far Pliny.

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1 This passage is not easily rendered, as it is difficult to see what Turner intended by 'turbinato.' Turbo is a conical shell, spindle and so forth; but it is hard to say how a Swan's beak could be considered either conical or spindle-shaped.
Onocrotalus

Nunc paucis auem illam uobis depingam, qua onocrotalum esse affeuerant. Auis est tota corporis figura Ardea similis. longis cruribus, sed ardeae breui-oribus. longo collo, & mirè plumoso, & rostro nec breui nec obtuso. caput penne tegunt nigerrimae. reliquum uerò corpus, fuscae & pallidae maculis nigris densissimè reperse. Pedes habet longissimos, nam inter extremos ungues medij digiti pedis unius & calcis eiusdem, ungues habet longissimos, nam ille, qui calcis vicem in auibus gerit, longitudine sequiunciam superat. quare ad fricandos dentes nostratos utuntur, & argento inferunt. Medius digitus utrinque pedis, qui ceteris longior est, unguem habet portentosum, nempe dentatum & ferratum, non fecus atque postunculorum tese ferrata sunt, ad lubricas anguillae, quas cepit, retinendas, à natura procudubio ordinatum. Cauda illi breuffima est, et stomachus capacissimus, quo inluuiei loco utitur. Ventriculum non ceterarum auium ventriculis, sed canino similem habet, & eum grandem & capacem.

Sed ne cui falsa esse uideantur, quae de hac aue iam scripsi, aut ex aliorum relatu potius quam certa experientia didiciisse uidear: dum prima huius libri folia adhuc sub praelo effent, auem mihi hanc contemplanti, secantiq., & nú tales haberet ventriculum & stomachum, quales Plinius illi tribuit, inueffigiante: aderant uir eruditiissimus, & abstrusiorem naturæ arcanimorù studio-fissimus inueffigator Ioannes Echthius, Medicus apud Colonienes celeberrimus: Cornelius Sittardus, Medicinæ prima laurea decoratus. M. Lubertus Eflius, artium liberalium professor, ambo simplicium medicamentorum pulchre gnari, & ad miraculum usque studio-si: & Conradus Embecanus uir non uulgariter doctus, et Gymnicanae officinae caffigator insigniter diligens, cum alijs aliquot bonarum artium studiois, qui me nihil de hac aue hic scripsiisse testari possunt & volunt, quod cum illis omnibus non uiderim. Ad ripas lacaum & paludium defidet, ubi rostrum in aquas in-

1 A misprint for ‘cepit.’
Now in a few words I will portray to you that bird which they assert to be the Onocrotalus. In general make of body it is like the Heron, with long legs, though shorter than that bird’s. The neck is long and marvellously thick with plumes, the beak is neither short nor blunt. Very black feathers clothe the head, but on the body generally they are dusky and pale, and most thickly sprinkled with black spots. It has very long feet, indeed there is a span’s length from the claw-tips of the middle toe of either foot to the heel of the same. It has very long claws, for that which serves in birds the purpose of a heel exceeds an inch and a half in length, on which account our countrymen use it to pick their teeth, and mount it in silver. The middle toe of either foot, which is longer than the rest, has a prodigious claw, that is to say, toothed and serrated, not unlike the shells of little scallops are, doubtless contrived by nature to retain the slippery eels, which the bird catches. The tail is very short, the gullet most capacious, and it uses it in the place of a crop. It has a belly not like that of other birds, but like that of a dog; it also is large and capacious. But lest what I have written thus far of this bird seem false to anyone, or lest I seem to have learnt the above from the reports of others rather than from sure experience: while the first pages of this book were still at press, and while I was examining the bird and was dissecting it, and taking note whether it really had a belly and a stomach such as Pliny had assigned to it, there were assisting me Joannes Echthius, a very learned man and a most zealous student of the more abstruse secrets of nature, a physician much renowned among the men of Cullen: Cornelius Sittardus decorated with the highest laurel-wreath of Medicine: Marcus Lubertus Estius, professor of the liberal arts, both excellently skilled in that of simpling, and wonderfully earnest, and as well as these Conradus Embecanus, a man well-informed in no common degree, and a remarkably careful corrector in the printing-house of Gymnicus, with certain others versed in learned arts, who can and will bear witness to the fact that I have written nothing here about this bird which I have not observed in company with all of them. It sits about the sides of lakes and marshes, where putting
fereos, tantos edit bombos, ut ad miliarium Italicum facilè posset audiri. Pisces & præsertim anguillas uorat auidissimè, nec uilla uis est, excepto mergo, quæ isla uoracior est. Nunc quid simile habet isla cygno? Nihil planè, quod se oculus conspiciendum offerat. Et Moïses Leuit. undecimo capite, proximè cygnus inter immundas uos onocrotalum recenset. Vnde non im-
meritò suspicio quibusdam orta est in Gallia, aut Iudæa auem forma orli similem alicui posse reverir. Quod si nusquam talis inneniatur: probabile est, aut Plin. à mendacibus relatoribus suis esse falsum, aut ea, quæ de similitudine inter onocrotalum & cygnus tradidit, non de corporis sed uocis similitudine intellexisse. Nam & uolos interdum bombos emittunt ruditui a.spinino non diuersis: sed breues, & quæ longè audiri non posseant.

Verùm si hanc meam interpretationē uarice, reconditā; eruditionis uiri, quos suffragiis minimè approbauerint, hanc saltem Arístotelis ardeam fistellarem esse mecum consentient. Nam præter cetera, quæ superius attigi, Arístoteles in fabula fuiffe ostendens, ardeam fistellarem ex ferro auem fuiffe factam, opinioni meæ multum patrocinatur. Ut fugitiuorum enim feruorù post fugam depraehēforum, cutis, loris, flagris, virgis, & scorpiōnibus iēla, uerberum uicibus, tota maculosa redditur: ita huīus uis plume nigris ubique maculis, sed potissimum in tergo, distinctē & ueluti picturata, serui flagris casī cutem proximè referunt. Quam rem fabulae occa-
sionem dedisse ex hoc colligo, quod fabularum uariarum autor Arístophanes1, de attagine aue, quod ad pluma-
rum colores attinet, huic similibus, ad hunc modum feribat:

Si quis ex uobis erit fugitius atq; uis notis, Attagen is fanè apud nos uarius appellabitur.

DE ORTYGOMETRA EX ARISTOTELE2.

Ortygometra, id est, coturnicū matrix, auis est forma perinde ac lacufrès. Cruribus ideo

1 See p. 36.
its beak into the water it gives utterance to such a booming as may easily be heard an Italian mile away. It gorges fishes and especially eels most greedily, nor is there any bird, except the Mergus, that devours more. Now what resemblance has it to a Swan? Distinctly none that brings itself in view before our eyes. Now in the eleventh chapter of Leviticus Moses enumerates the Onocrotalus next to the Swan among the unclean birds. And a suspicion has arisen thence, not undeservedly, within a certain class, that somewhere within Gaul or Judæa a bird of Swan-like form may possibly exist. If such, however, nowhere can be found, it seems likely that Pliny either was deceived by lying storytellers or he understood that which he has related of the similarity between the Onocrotalus and Cygnus to refer to a resemblance not of body, but of voice. For even Swans utter at certain times booms not unlike the braying of an ass: but short, and which cannot be heard afar. However if men of deep and varied learning by their votes shall not approve this rendering of mine, at least they will agree with me that the said bird is Aristotle's Ardea Stellaris. For to omit the rest, which I have touched upon above, that author certainly gives countenance to my opinion when he shews a tale to have existed that the Ardea Stellaris from a slave was turned into a bird. For as the skin of an absconding slave, caught subsequent to flight, stricken with thongs, whips, rods and knotted ropes, becomes all mottled with the wales of stripes, so too the feathers of this bird are marked, and painted as it were, with mottlings of black in every part, though chiefly on the back, and thus may well recall to us the skin of slaves cut up with whips. And that this thing gave rise to the aforesaid tale, I gather from the fact that Aristophanes, author of various plays, writes of the Attagen, a bird very like ours so far as colour of the feathers goes, to this effect:—

"If any of you be a runaway, and branded with the marks, with us assuredly he shall be called the spotted Attagen."

Of the Ortygometra from Aristotle.

The Ortygometra, that is, dam of the Coturnices, in form is much like marsh-birds. Certain birds are
longis aues quaedam innituntur, quòd earum uitæ fit paluflris.


Fieri igitur non potest, ut matrix & cychrano eadem auis sit. Aliqui ortygometram esse volunt Germanorun sericam, & Anglorum daker hennam, quorum ego sententia accederem, si crecem eandem cum ista euincerent.

DE OSSIFRAGA.

Aristoteles¹.


Plinius⁴.

Quidam adijciunt genus aquilæ, quam bar- batam uocat Thufci ossifragam.

² Apparently a misprint for 'cinereo.'
³ Hist. An. Bk IX. 123.
⁴ Hist. Nat. Lib. X. cap. iii.
perched upon long legs because their life is passed in marshes.

Some will have Ortygometra to be the same as Crex and Cychramus. But Aristotle has attributed a peculiar sort of head to Crex, and in the eighth book of his History of Animals distinguishes his Cychramus from Matrix, which he calls Ortygometra, in the following words:

na Coturnices (he says) when they come to these places it travel without guides: but when they go away set out with the Lingulaca, the Otus, and the Matrix as their it guides, and also with the Cychramus, by which they or are moreover summoned back at night. And when the fowlers have heard its cry, they know the birds’ departure is at hand.

Thus he writes.

Therefore it is impossible that the Matrix and the Cychramus should be the same. Others will have the Ortygometra to be the Scrica of the Germans and the Daker Hen of the English, and I should accede to their opinion, if they could but prove the Crex to be the same as this.

OF THE OSSIFRAGA.

ARISTOTLE

In size the Ossifrage is greater than the Aquila, its colour whitish grey¹. Both in breeding it is comely and in way of life, it brings food home and is kindly. For it rears its own young with care, besides those of the Aquila. For when the latter has cast its progeny out of the nest, the former takes them to itself, and brings them up.

PLINY.

Some there are who add that kind of Aquila, which the Tuscans call a bearded Ossifrage².

¹ See p. 36.
² Possibly Pliny means the Lämmergeier (Gypaetus barbatus).
Otus—Otis—Pari

DE OTO.

ὁτός, otus, Anglice a horn oul, Germanicè eyn ranjeul / oder eyn schleier eul.

Aristoteles. 1.


De otide ex Plinio 4.

Tetraonibus proximæ sunt, quas Hispania aues tardas appellant, Græcia otidas, damnatas in cibus. Emissa enim ossibus medulla, odoris tæedium extemplò sequitur.

DE PARIS.

ἀγιθαλός, parus, Anglice a tit mouse, German. eyn meyše.

Aristoteles 5.


Fringillago. Primum parù, Angli uocant the great titmous or the great oxci, Germani eyn følmeysže.

Parus medius. Parum secundum, Angli the les titmous nominant. Germanici eyn meelmeysže.

1 Hist. An. Bk viii. 84. very freely rendered.
2 Aristotle has ‘νυκτικόρακα,’ instead of ‘ululam’ and ‘asionem.’
3 A misprint for ‘aucupe.’
**Of the Otus.**

*ωτός, otus, in English a horn owl, in German eyn ranseul or eyn schleier eul.*

**Aristotle.**

The Otus is like a Noctua, furnished with little tufts sticking out near the ears, whence it has got its name, as though one should say "eared." Some call it Ulula, and others Asio. It is a babbler and a mischievous rogue, and is a mimic too, for when men dance it imitates their ways. It is caught while intent upon one of two bird-catchers, the other circumventing it.

**Of the Otis from Pliny.**

Next to the Tetraonies come those birds, which Spain calls "Aves tardæ" and Greece "Otides," condemned as food for man. For when the marrow issues from the bones, disgust at the smell follows there and then.

**Of the Pari.**

*αἰγίθαλος, parus, in English a titmouse, in German eyn meyse.*

**Aristotle.**

There are three kinds of Pari: Fringillago bigger than the rest, for it is equal to a Fringilla. The next Monticola by name, for it inhabits mountains, has a longer tail. The third kind differs in the size of its small body, though not otherwise unlike the rest. Parus lays many eggs,

The first Parus the English call the Great Titmouse or Great Oxeye, the Germans eyn kölmeyse.

The second Parus the English name the Less Titmouse, the Germans eyn meelmeyse.
Parte Pardalus

Parus minus.

Parum tertium, Angli nonnam à similitudine quam cum velata monacha habet, nominant.
Nidulantur pari in causis arboribus, useuntur non solum uermibus, sed & canabino femine, & nucibus, quas rostris suis acutioribus solent perforare, & nucleos eruere. Seu duo prion genera multum delectantur. Parus maximus inecte flatim uere cantuiculum quandam breuem, nec admodum incundam exercet, aliis mutus, hic peclus uticum est, intercurante linea nigra maiuscule. Cætorum corpora albo, nigro, pallido, & cyaneo coloribus distinguuntur.

DE PARDALO.

Pardalus, Angl. (ut creditur) a pluer, Germa. eyn puluer.

Aristoteles¹.

Pardalus etiam uicula quædam perhibetur, quæ magna ex parte gregatim volat, nec singularem hanc uideris, colore tota cinerea est, magnitudine proxima mollicipiti² est: sed pennis & pedibus bonis, uocem frequentem nec grauem emittit.

Si aus illa pardalus fit quam esse suspicor, celerimè currit, & fibilum, quem pastores & aurigorum pueri labijs porreçtis edunt, uoce imitatur. Pennas habet ad cinereum colorum proximè uergentes, quorum singulae singulis flavis maculis sunt refpersæ, & ea uicula, quam mollicipiti esse conijcio, multò major est. Fieri potest, ut eius ausis plures sint species.

DE PASSERIBVS.

στροῦθος, passer, Angli. a sparrow, German. eyn mifhe oder eyn ipâs. Quidam eyn hiningf, Saxones eyn sperlingf uocant.
Passer, authore Aristoteles³, puluerat & lauat, et aus est omnium falacißima. Et quamquam Aristoteles unum tantum passerum genus fecerit, tria tamè genera esse conflat, quæ nunquam nouit, & quæ recentiores

² Aristotle has ἐκεῖνος, referring to the χλωρίων and the μαλακοκρανεῖς.
The third Parus the English name the Nun from the resemblance that it bears to a veiled sister.

The Pari nest in hollow trees, they feed not only on worms, but on hempseed and nuts, which they are wont to bore with their sharp-pointed beaks, and thence extract the kernels. The two former kinds are very fond of suet. The Greatest Parus, when the spring arrives, at once utters a sort of little song, short and not very pleasing, it is dumb at other times; its breast is yellow with a somewhat big black line running along the middle. Of the other kinds the bodies are diversified by white, black, grey, and blue.

OF THE PARDALUS.

Pardalus, in English (as is believed) a pluver, in German eyn pulver.

ARISTOTLE.

The Pardalus again is held to be a certain little bird, which for the most part flies about in flocks, and cannot be seen solitary; it is wholly grey in colour, and in size comes nearest to the Molliceps: but it has strong wings and feet, and utters a frequent but not deep-toned cry.

If that bird be the Pardalus which I suspect, it runs very swiftly, and by its cry mimics the whistle which shepherds and post-boys make with pouting lips. It has the feathers almost ash-colour, each sprinkled with one yellow spot, and is much bigger than the little bird which I suppose to be the Molliceps. It well may be that there are several kinds of this bird.

OF THE PASSERES.

στρογγός, passer, in English a sparrow, in German eyn müsche or eyn spätz. Some call it eyn lümíngk, the Saxons eyn sperlingk.

The Passer, Aristotle says, both dusts itself and washes, and is of all birds most wanton. And though Aristotle has made only one kind of Passeres, yet it is clear that there are three kinds, which he never knew; but which the later

**Paulus Aegineta de passe**

...troglodite.

His accedit laudatissimum remedium troglodites. est autem passerculus omnium auium minima, ea fola excepta, quæ regulus appellatur, hoc enim folo paulò maior est, eif similis: colore inter cineriù & uiride, tenui rostro, in muris maximè & in sepibus degens.

**Aetius.**

Troglodites est passerculus minimus, iuxta sepès & muros uiçtum quærítans. Est hic animalculum omnium auiclarum minimum, excepta ea, quæ regulus appellatur, similis autem regulo in multis, præterquam quod in fronte auricolores pennas non habet. Est autè troglodites passer regulo paulò maior & nigrior, caudamù temper subtrectam, & albo colore retrò interpunctam habet. Magis item garrulus
eks discovered. First of these three is Passer torquatus, being from the common Passer not alone in its white bar, but also its note and mode of nesting. This kind is plentiful in Germany, but rare among the English. The second Passer is called in the Supplement the Great, and the most part it is wont to sit on the top boughs of trees. For several reasons I consider this to be the Bunting of the English and the Gersthammer of Germans. The third Passer, unknown to Aristotle, is the Passer troglodytes, fully recognized by Paulus Ægineta and Aëtius, doctors of great renown. And so what sort of bird it is will easily be seen by everyone from Paulus and Aëtius, and their descriptions will forthwith add.

Paulus Ægineta\(^2\) of the Passer troglodytes.

There is a remedy most highly prized besides these, namely Troglodytes: this is nothing but a little Sparrow, the least of all birds, with the exception only of that kind which is called Regulus. It is a little bigger than that bird alone, and similar to it: in colour between grey and green, and with a slender bill. It lives chiefly in walls and hedges.

Aëtius\(^3\).

The Troglodytes is the very least of Sparrows, seeking for its food near hedges and near walls. This little animal moreover is the smallest of all little birds, except that which is called Regulus, while it is like the Regulus in many ways, save that it has not golden-coloured feathers on the forehead. The Passer troglodytes is a little larger and blacker than the Regulus; it always has its tail cocked up, which is spotted behind with white. Likewise it is more noisy than the

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1 It seems impossible to ascertain what this Auctuarium was.
2 A medical writer of Ægina, whose chief work was De Re Medica Libri Septem.
3 A Greek medical writer of Amida in Mesopotamia who wrote Βιβλία ἱατρικά Ἐκκαίδεκα.
quām regulus est, & sānē iuxta sūmmum alae
 lineamentum cinerij amplius coloris. Breues
 item facit ulolatus, naturalem autem uim omnino
 admiratione dignam habet.

Nihil est in hac descriptione, quod non ad amussum
 auncula convenient, quam Angli pafferem sepiarium,
 Colonientes auncipes koelmußhum nominant. Sed quon-
niam tam in Germania quàm in Anglia narijs nomi-
nibus appellatur, & non omnes eum ex uno nomine
 agnoscant, omnia eius, quæ noui nomina, ut omnibus
 innotescat, subijciam.

Vocatur apud Anglos an hedge sparrow, hoc est
 passer sepiarius, & a dike smouler, hoc est, in sepius
 [p. 111] delitefcent. Vulgus Colonifœ hunc passerem eyn graß-
musch appellat. uerū peritiores quig: auncipes eyn koel-
musch, hoc est, passerem in foraminibus & cauernis
degentem, nuncupant. Hic Germanos monitos uolo,
quī duæ sint aues, graßmuschi, sua lingua uocatæ,
illā solā effe trogloïdieten, que per totum annum regulo
 similis cernitur, & non illam, quæ circa fauces plumosâ
 ineunte flatim hyeme difcedit. Nidum huius pafferis
 semel humi factum inter urticas uidi, & pullos ante-
quam uolare possunt, relietü nido, inter herbas fruticesq-
reptitantes, sepius obseruaui: uermibus pafcitur, &
paulò ante uesperum folet impensius fierepere, & omnium
 ferè auium postrema dormitum petit.

DE PAVONE.

Taòv, pavo, Anglice a pecok, Germanice eyn pffau.
 Saxonice eyn pagelân.

PLINIUS 2.

Pavo gemmantes laudatus expandit colores,
aduerfo maximè fole, quia síc fulgentius radiant,
simul umbrae quoddam repercussus ceteris, quæ
 [p. 112] in opaco clarius micât, conchata quærít cauda,
 omnesq in aceruum contrahit pénarum, quos

1 This is probably a misprint for some other word.
Passer Regulus, and certainly towards the upper border of the wing the colour is more nearly grey. And though it takes short flights, its natural energy is worthy of all admiration.

In this description there is nothing that does not agree exactly with the little bird, which Englishmen name Passer sepiarius, the bird-catchers of Cullen the koelmusch. But inasmuch as both in Germany and England it is called by various names, and all men do not recognise it by the same, I will subjoin those of its appellations which I know, that so it may be known to all.

By the English it is called a Hedge-Sparrow, which is the same as Passer sepiarius, and also a Dike Smouler, one, that is, hiding itself in hedges. The common people of Cullen call it eyn grassmusch, but those who know better and fowlers name it eyn koelmusch, that is, a Sparrow dwelling within holes and caverns. Now here I wish the Germans to be warned, that since there are two birds called grasmusch in their tongue, the Troglodytes is that kind alone which throughout the year is noticed to be like the Regulus and not that which is feathered round the jaws, and goes away so soon as winter comes. Of this Passer I once met with a nest built on the ground among nettles and I have often seen young having left the nest before that they could fly, creeping among the grass and shrubs. It feeds on worms, and it is wont a little before evening to cry out with not a little vehemence; it goes to roost almost the last of all the birds.

**Of the Pavo.**

Taóν, pavo, in English a pecok, in German eyn pffaw, in Saxon eyn pagelün.

Pliny.

The Peacock is admired for setting forth his jewelled colours, generally counter to the sun, since thus they shine the brighter, while with concave tail he gains certain reflexions of the shade for other feathers which shine brighter in the dark, and at the same
Pavo—Perdix


DE PERDICE.

Πέρδιξ, perdix, Anglice a pertrige, Germanicè cyn velt hôn/ ader cyn raphôn.

ARISTOTELES\(^2\).

Perdix ausis est pulueratrix, & non altiuola, & eadem non in nido fed in condenfo frutice \([p. 113]\) aut segete prolem suam munit. Aues enim grauiores nidos fibi non faciunt, ut coturnices & per-dices, & reliquæ generis eiufdem. Quibus enim uolandi faculas deest, ijs nidus non prodeet: fed facta in aprico\(^3\), area, (alibi enim nufquam pariunt) atque materia ut uepribus\(^4\) quibusdam congeftis, quoad accipitrum & aquilarum iniuri- riam deuitare possumt. Oua edunt, & incubant, mox cùm excluserint, protinus pullos educunt. propteræ quòd nequeunt fuo uolatu ijs cibum administrare. Refouent pullos suos fub ſe, ipsæ ducendo more gallinarum, & coturnices & per-dices. Nec eodem loco pariūt & incubăt, ne quis locum percipiát, longioris temporis mora.

\(^1\) A misprint for ‘spectari.’
\(^3\) There is a reading λείο Besides ηλιο.
\(^4\) Aristotle has ἄκαρδών τῶν καὶ ὑλην, so no doubt ‘ut’ is a misprint for ‘et.’ Gaza has ‘ut.’
time draws into a cluster all the eyes upon his feathers, which he is well pleased should be admired. The same bird, having lost his tail, when the trees shed their leaves by annual change, ashamed and sorrowing seeks a hiding place, until it once more grows together with the flowers. He lives for five and twenty years, and in the third begins to shew his colours. He is reported by authorities to be an animal not only proud but also ill-disposed, just as the Goose is bashful. Peacocks have on their heads as it were a bush of hair.

**OF THE PERDIX.**

Πέρδιξ, perdix, in English a pertrige, in German eyn velt hön, or eyn raphön.

**Aristotle.**

The Perdix is a bird that dusts itself, and flies not high; moreover it finds safety for its young not in a nest, but in thick shrubs and corn. For birds of heavy body make no nest, such as Coturnices and Perdices, and others of like sort. For to those kinds in which facility of flight is wanting, there is small advantage in a nest; but in some sunny place (for they breed nowhere else) a space is cleared and sticks and a few briars are collected there sufficient for them to avoid attacks of Accipitres and Aquilæ. They lay their eggs and sit; so soon as these are hatched, they lead their young away forthwith because they cannot supply food to them by means of flight. Both Coturnices and Perdices cherish their chicks beneath them, themselves leading them in the same way as hens lead theirs. They do not lay and incubate in the same place (year after year), lest any one should find it through the length of time for which they sit. Should

1 See p. 35.
Perdix—Phasianus—Phænix

Cūm ad nidum quis uenando accesserit, pro-
[p. 114]uoluit qe perdix ante pedes uenantis, quafi iam
capi possit, atque ita ad se capiendam hominem
allicit, eoufque dum pulli effugiant, tum ipsa
uolat, & reuocat prolem. parit oua non pauci-
ora quàm decem.

Est & alia avis, quæ perdix rustica dicitur, Anglis
rala diça, cuius his uerfibus Martialis meminit:
Rustica sum perdix, quid refert si fapor idem?
Charior est perdix, si fapit illa minus.

DE PHASIANO.
Phasianus, Anglice a phefan, Germanicè ευν фаîant/ 
oder ευν фаîian.

Plinius.
Phasiani geminas aures ex pluma submit-
tunt, subrigunt. quæ ueluti cornicula appa-
rent.

Aristoteles.
Phasianorum oua punctis diuinita sunt ut
meleagridum, puluerant ut gallinæ & perdices.
[p. 115] Phasiani à pediculis infestantur, & nisi inter-
dum puluerent, eisdem interimuntur.

DE PHÆNICE.

Plinius.
Aethiopes atque Indi discolorum maximè &
inenarrabiles ferunt aues, & ante omnes nobilem
Arabię phænicem: haud scio an fabuolose, unum
in toto orbe, nec uifum magnopere. Aquilæ
narratur magnitudine, auri fulgore circa colla,
caetera purpureus, cóeruleam rofes caudam pen-

1 Aristotle has ὡς επιληπτος oðora, which means ‗as if disabled.‘
2 Epigr. Lib. xiii. lxxvi.
3 Hist. Nat. Lib. x. cap. xlviii.
4 Hist. An. Bk vi. 5, Bk IX. 260, Bk v. 140.
5 Hist. Nat. Lib. x. cap. ii.
any man when hunting come up to the nest, the Perdix casts herself before the hunter’s feet, as if she could be caught at once, and thus attracts the man to take her, till the chicks escape, whereon she flies off and recalls her brood. She lays no fewer than ten eggs.

And there is yet another bird, which is called Perdix rustica: it is called “rale” by Englishmen, and of it Martial makes mention in the following lines:—

I am a country partridge, but what matters it so that the flavour be the same? The partridge is the dearer, if it tastes less well\(^1\).

**Of the Phasianus.**

Phasianus, in English a pheasant, in German eyn fasant or eyn fasan.

**Pliny.**

The Phasiani lower and erect two ears of feathers, which look like small horns.

**Aristotle.**

Of Phasiani the eggs are marked with spots, like those of Meleagrides; they dust themselves, just as Gallinae and Perdices do. Phasiani are a prey to lice, and if they do not sometimes dust themselves, are killed by them.

**Of the Phœnix.**

**Pliny.**

The Æthiopians and Indians tell of birds of very varied colouring and indescribable, and of the Phœnix of Arabia, most noteworthy of all: I know not whether falsely, that there is but one in the whole world, and this not often seen. It is declared to be of the size of an Aquila, with golden sheen around the neck, but purple otherwise, varied with roseate feathers on

\(^1\) The text here given is probably corrupt, which makes the rendering uncertain.
nis distinguentibus, criftis faciem caput plumeo apice honestante. Primus atque diligentissimus togatorum de eo prodidit Manilius, senator ille maximus, nobilis, doctore nullo, autor est, neminem extitisse, qui uiderit uesce-[p. 116]tem. Sacrum in Arabia soli esse, uiuere annis 660. fenescetem cafa thuris furculis con- struere nidum, replere odoribus, & superemori. Ex ossibus deinde ac medullis nasce primò ceu uermiculum, inde fieri pullum.

**DE PICA.**

**Kιρρα, pica, Anglice a py, or a piot, Germanicè eyn elster/ oder eyn aśel.**

**ARISTOTELES**¹.


**PLINIUS**².

Minor nobilitas, quia non ex longinquo [p. 117] uenit, sed expressior loquacitas certo generi pica rum est, quàm psitacis est. Nec dicunt tantum, sed diligunt meditantes transem, cura atq æ cogitatione, intentionem non occultant. Constat emori uicetas difficultate uerbi, ac nisi subinde eadem audiant, memoria falli, querentes mirum in modum hilarari, si interim audierint id uerbum. Nec uulgaris ijs forma, quamuis non

¹ *Hist. An.* Bk ix. 81.
a tail of blue, tufts beautifying the face, a feathery crown the head. First of our citizens and with great care Manilius wrote of it, that noted senator, of such high birth; of his own knowledge he asserts that nobody exists who ever saw it eat. He says that in Arabia it is considered sacred to the sun, and lives for six hundred and sixty years. When it grows old it makes itself a nest with cassia and twigs of frankincense, this nest it stores with scents and on the top it dies. Then from its bones and marrow is produced what seems a little worm, but afterwards becomes a chick.

OF THE PICA.

*Kîrta*, pica, in English a py or a piot, in German eyn elster or eyn atzel.

ARISTOTLE.

The Pica oftentimes changes its notes, for almost every day it utters different cries. It lays about nine eggs. It makes a nest in trees, of hair and wool, and when acorns grow scarce, it gathers them and keeps them hidden in store.

PLINY.

Less fame, because it does not come from distant lands, though more distinct loquacity characterizes a certain sort of Picae than the Psittacci. Not only do they learn, but they delight to talk, and meditating carefully and thoughtfully within themselves hide not their earnestness. They are known to have died when overcome by difficulty in a word, and, should they not hear the same things constantly, to have failed in their memory, and while recalling them to be cheered up in wondrous wise, if meanwhile they have heard that word. Nor is their beauty of an

1 Or perhaps, 'their form is not commonplace, though not showy to the eye.'
spectanda, fatis illis decoris in specie fermonis 
humanis est. Verum addiscere alias negant 
posse, quam quae ex genere earum sunt, quae glande uescentur, & inter eas facilius, quibus quini sunt digiti in pedibus: ac ne eas quidem 
ipsas, nisi primis duobus uite annis. Nuper et 
adhuc tamen rara ab Appennino ad urbem 

[p. 118] uersus cerni coepere picarum genera, quae longa 
insignes cauda uariorque appellantur, proprium his 
caluescere omnibus annis cum feratur rapa.

Plinius duo picarum genera facere uidetur: posterus 
hoc genus Plintij, picarum genus esse uidetur, quod 
passim in Germania & Anglia longa cauda praeditum, 
qua & pullos gallinarum populatur. Aliud genus pice, 
tam longa cauda ornatum, quam hoc est, non noui. 
nostra quoque pica vulgaris caluescere quotannis solet. 
Alterum autem pica genus diu autem dubitaui quod nam 
esse, & adhuc non fatis teneo. Cum essum in Italia ad 
ripam Padi, ambulantibus mihi, & itineris mei conti- 
tibus, uis quaedam pice similes, lingua Britannica 
iaia, & Germanica mercolphus appellata, conspiciendam 
se commodum obtulit, cuius nomen Italicum quum 
a monacho quodam, qui tum forte aderat, percontarer, 
picam granatam dici respondit. Qua re cium apud 
Italicum etiam ulgus non solum pristinae linguae 
Romane, sed & rerum scientiae, non obscura ues gia 
adhuc superesse deprahenderem, suborta est mihi hinc 
suspicio, auem hanc ë generibus picarum esse, & quod 
seirem candem, altera vulgari pica, multi expressius 
humanas uoces imitari, ita suspicionem meam auxit, 
ct parum absit, quin credam hanc esse alterius generis 
picam, nam & glandibus ues citrus magis omnibus aliisque 
uibus.

1 Probably Reader in Greek to Edward VI. (cf. Dict. National 
Biogr. XLV. p. 21).
ordinary sort, though not considerable to the eye; for them it is enough honour to have a kind of human speech. However people deny that others are able to learn, save those belonging to the group which lives on acorns—and of these again those with the greatest ease which have five toes upon each of their feet: nor even they except during the first two years of life. Of late, however, and as yet infrequently, towards the city from the Appennines there have begun to be observed some sorts of Picae which being remarkable for the length of their tails have been called "variae." They have this special mark that they grow bald in every year when rape is sown.

Of Picae Pliny seems to make two kinds: this latter kind of his would seem to be that Pie which here and there in Germany and England plunders both the eggs and chicks of fowls, possessing a long tail. I do not know another kind of Pie provided with a tail so long as this. And furthermore our common Pie is wont to grow bald every year. Now what the second sort of Pie might be I doubted very long, nor have I yet grasped it sufficiently. But when I was in Italy upon the banks of the Po, and while my fellow-travellers and I were walking out, a certain bird like a Pie, in English called a Jay, in German mercolphus, offered itself conveniently for observation. Thereupon I asked a certain monk, who then by chance was present, its Italian name, and he replied to me that it was called the Seed Pie. When therefore I perceived that with the common people of Italy not only patent traces of the old Roman tongue still actually existed, but also of things scientific, a suspicion rose within me that this bird was of the group of Pies; moreover, since I knew that the same imitated human tones much more correctly than the other Pie, which is the commoner, so much was I confirmed in my suspicion that I can scarcely refuse to credit that this Pie was Pliny’s second kind, particularly as it lives on acorns more than any other bird.

1 Ghiandaja is the modern Italian name, derived from 'glans'=an acorn.
DE PICO MARTIO.

Aristoteles 1.

Alia culicibus 2 gaudent, nec alio magis quam uenatu culicum iiuit, ut pipo tum maior tum minor, utrumque picum martium iiocant. Similes inter se sunt, uocem lib fimilem emittunt, sed maiorem, quae maior est. Item kolios 3, cui magnitudo quanta turturi feret est, color luteus, lignipeta hic admodum est, magna ex parte more picorum ve metai eti tōv éulον, quod est, ut interpretatur Gaza, ex macerii uiuit: uocem emittit magnam, incola maximè Peloponefi hic est.

Obferua ubi Aristoteles duo tantām picorum genera facit, ibidem illum galgalum desciptere, & ubi tria facit, eundem omittere.

Aristoteles 4 lib. 9. cap. 9. de historia animalium.


1 Hist. An. Bk viii. 43—44.
2 Gaza translated Aristotle's σκνηφ by culex (=gnat). Most probably it may be used for various small winged creatures.
3 There is another reading, κελεύς.
5 kolios may be a misreading here and below for κελεύς, but this seems doubtful.
Of the Picus Martius.

Δρυοκολάπτης, picus martius, pipo, iynx, torquella, turbo, in English and in German a specht, eyn specht.

Aristotle.

Some birds delight in grubs, and as a rule live on no other prey, as do the great and little Pipo, both of which people call Picus Martius. Resembling one another they utter like cries, although the greater has the louder cry. Again there is the κολιώς, the size of which is, nearly as may be, that of the Turtur, and its colour yellowish. It pecks wood freely, and, as the Pici do, lives for the most part on the trunks, that is, lives on the wood¹, as Gaza renders it: it utters a loud cry, and is especially a resident in the Peloponnese.

Note that, when Aristotle only makes two sorts of Pici, in that passage he describes the Galgulus, when he makes three, he does not mention it.

Aristotle book 9, chap. 9, of the history of animals.

Alauda, Gallinago, and Coturnix never alight on trees, but always on the ground. It is however otherwise with Picus Martius, which never can endure sitting upon the ground. It hammers oaks for worms and grubs, that they may shew themselves, and when they issue forth it takes them on its tongue, which it has somewhat long and broad. It climbs about a tree in every way, for it even walks upside down, after the way of Lizards. It has claws better formed for creeping safely on the trees than even the Monedula, and climbs with them stuck in. There are three sorts of birds that have the special name of Picus Martius, one less than a Merula, which has some

¹ Cf. p. 88.

Primum pici genus Angli cpchta m, & uooldspechtam, Germani efterspechtam nominant. Secundum genus Angli huholam, hoc est, foraminum dolatorem, Germani grunsfrekti nuncupant. Tertiud genus Anglia nò nouit, Germani ait crafstemat i. cornicinum picum appellat, quod cornicem plumariiCole & magnitidue etiam penè æquet.

Pliniius præter hæc tria Aristotelis genera, quartum pici genus facere uidetur, nam lib. 10. cap. 33 scribit. picum aliquem suspendere nidum in furculo primis in ramis cyathi modo, ut nulla quadrupes posset accedere.


1 Hist. An. Bk ii. 46—47.
feathers red. The second bigger than a Merula, the third not much less than a barn-door hen. It breeds in various trees and olives in particular. It feeds on ants and grubs, and when hunting for grubs is said to excavate so vigorously as to fell trees. Indeed one that was tamed broke at the third attempt an almond which it had inserted in a chink of the wood, that being fixed it might more surely receive the stroke, and ate the kernel out. In some few birds there are two claws in front and two behind, as in the little bird which men call Iynx. This kind is not much larger than a Fringilla, and has the body mottled. It has moreover the peculiar arrangement of the toes, of which I have just spoken, and a tongue like that of serpents, for it shoots it out up to a distance of four fingers' length, and draws it back again within the beak; it twists its neck moreover backwards, with its body still, just as the serpents do, whence it is commonly called Torquilla, although it is the Turbo of old writers. It has claws of great size, which are like those that grow on the Monedula, it has a strident cry.

Of Picus the first kind the English call the Specht and Wodspecht, which the Germans name the elsterspecht. The second kind Englishmen term Hewhole, that is, hewer of holes, the Germans grunspecht. The third kind England knows not, but in Germany they call it craspecht or the Crow-Picus, for it is very nearly like a Crow in colour of the plumage and also in size. Besides these three sorts of Aristotle Pliny seems to make a fourth, for in Book 10 and chapter 33 he tells us that a certain Picus hangs its nest, in fashion like a cup, upon a twig among the outer branches of a tree, so that no quadruped is able to come nigh. Except the Vireo alone, I know no other bird in Europe which places its nest in such a way. Wherefore I find no other than the above which the fourth kind of Picus possibly can be.
Psitacus—Platea

DE PSITACO.

Psitacus, Anglice a popiniay, Germanicè eyn vapegay.

Aristoteles 1.
Nam & Indica auis, cui nomen psitace, quam loqui aiunt 2 , talis est, & loquacious 3 quum biberit uinum, redditur.

Plinius 4.

DE PLATEA.

Πέλεκαν, platea, platelea, pelecanus, Anglice a shouelard, Germa. eyn leflet/ vb' eyn løffel gäb.

Aristoteles 5.
Platea fluiatiolis, conchas maiusculas, leues 4 deuorat, quas ubi sua ingluuiie coxerit, euomit, ut hiantibus teftis exuens, legat atque edat.

Plinius 6.
Platea nominatur aduolans ad eas, quæ se in mari mergunt, & capita illarum morfu coar-

1 Hist. An. Bk viii. 85.
2 τὸ λεγόμενον ἀνθρωπόγλωττον.
3 ἀκολαστότερον = reckless.
4 Hist. Nat. Lib. x. cap. xli.
Psitacus—Platea

OF THE PSITACUS.
Psitacus, in English a popinjay, in German eyn papegay.

Aristotle.
An Indian bird indeed, the Psitace by name, which people say can speak, is such a one as this, and is reported as more talkative after it has drunk wine.

Pliny.
Beyond all Psitaci repeat men's words, and even talk connectedly. India sends this bird, which they call Psitace, with the whole body green marked only by a scarlet ring upon the nape. It will pronounce "Hail Emperor," and any words it hears; it is especially sportive after wine. The hardness of the head is the same as of the beak. And when the bird is being taught to speak, it is beaten with an iron rod, else it feels not the strokes. When it flies down it receives its weight upon its beak, and supports itself thereon; and thus lightens itself to remedy the weakness of its feet.

OF THE PLATEA.
Πελεκάν, platea, platelea, pelecanus, in English, a shovellard, in German eyn lefler or eyn löffel ganss.

Aristotle.
The Platea, a river bird, devours biggish shell-fish, if they be but smooth, and, after it has seethed them in its crop, it casts them up again, that stripping them off from their gaping shells, it so may pick and eat them.

Pliny.
The Platea, as it is called, flies at those birds which dive below the sea, and seizes their heads with a bite
piens, donec capturam extorqueat. Eadem cùm se deuoratis impleuit conchis, calore uen- 

tris coctas, euomit, atque ita esculenta legit, 
tefts excernens.

Hieronymus.

Pelicani cùm suos à serpente filios occisos 
inueniunt, lugent, fef & sua latera percutiunt, 
& fanguine excusso, corpora mortuorum sic re- 

uuiiscunt.

Conradus Geßnerus, cùm Tiguri agerem, homo ut 
doctlissimus, huius mihi auis cogni- 

tionem (ut fatear, per quem profeci) primus omniù 
communicauit, & ideo Germanis leflerd uocari docuit, 
quod rostrù cochlearì simile haberet.

De porphyrione ex Plinio.¹

Porphyrio solus morfu bibit: idem ex pro- 
prio genere omnem cibù aqua subinde tingens, 
deinde pede ad rostrum ueluti manu adferês, 
laudatissimi in comagene.² Rostra ijs & præ- 
longa crura rubent.

DE REGVLO.

Trochilus, πρέσβυς, βασιλεύς, trochilus, senator, 
regulus, Anglicè a uuren, Germanice eyn funingsïen/ 
öder eyn tönfningsï.

Aristoteles.³

Trochilus & fruteta incolit, & foramina, capi 
difficulter poteft, fugax atque infirmis moribus 
est, fed uiictus probitate, & ingenij folertia præ- 
ditus. uocatur idem senator & rex, quam ob 
rem aquilam cum eo pugnare referunt.

¹ Hist. Nat. Lib. x. cap. xlvi.
² It almost seems as if 'Comagene' should be 'Commageno,' in which case we might translate 'They are highly prized for ointment.'
³ Hist. An. Bk IX. 75.
until it wrenches their prey from them. So too when it has filled itself with shell-fish that it has devoured, it casts them up, seethed by its belly's heat, and so picks out the eatable parts, sifting off the shells.

Hieronymus.

Pelecani, when they find their young killed by a serpent, mourn, and beat themselves upon their sides, and with the blood discharged, they thus bring back to life the bodies of the dead.

Conrad Gesner, a man most learned as he also was most truthful, first imparted to me while I was at Zurich knowledge of this bird (that I may own from whom I profited), and taught me that it was called lefler by Germans because it has a spoon-shaped beak.

Of the Porphyrio from Pliny.

The Porphyrio alone drinks with a bite, it also is peculiar in dipping all its food from time to time in water, and then bearing it to its beak with its foot, as with a hand. The best are found in Comagene. Their beaks and very long legs are red.

Of the Regulus.

Trochilos, πρέσβυς, βασιλεὺς, trochilus, senator, regulus, in English a wren, in German eyn kuningsgen or eyn zaunküningk.

Aristotle.

The Trochilus inhabits shrubberies and holes, and cannot easily be caught. Now it is shy and of a feeble habit, but endowed with great ability of getting food and knowledge of its craft. The same is called both senator and king, on which account the Aquila, they say, fights with it.
Regulus—Rubecula—Ruticilla

Trochilus, est avium omnium minima, cauda longa & semper erecta, rostro longiusculo, sed tenuissimo, colore ferè fulvo. nidiun facit foris ex musco, intus ex plumis aut lana, aut floccis, sed plurimù ex plumis. Oui erecti & in altero suo fine cósśentis, formá nidus habet, in medio ueluti lateore hostiolum est, per quod ingreditur & egreditur. In poslicis ædibus & stabulis stramine teglis, interdû nidû constituit, sed sæpiss nobis in fyluis. auis est etiam solitata, & gregatim nunquam volat, inò quoties aliurn sui generis offendit, max illi bellum indicet, & conßictatur. Quare aues ille, quæ in Bauaria pennis auricoloribus, quas in capitibus ceu coronas aureas ferunt, in fyluis æstate degentes, & gregatim ad urbes hyeme aduolantes, reguli non sunt sed tyranni Aristotelis, ut poslae docebo.

[p. 127]

DE RVBECVLA ET ruticilla.

Rubecula

Εριθακος, ἡ ἐριθεα, rubecula, Anglice a robin red-brest, Germanice eyn rotbrust/ oder eyn rötfelchen.

Ruticilla

Φοινικουρός, &, ut alter textus habet, φοινικοῦργος, Plinio phœnicurnus, Gazæ ruticilla, Anglice a rede tale, Germanicè eyn röt sterñ.

Aristoteles¹.

Rubecula & ruticilla uermibus aluntur. Rubeculæ, & quæ ruticillæ appellantur, inuicem transeunt, est'que rubecula hyberni temporis, ruticilla æstiiui, nec ali ferè inter fe differunt, nifi pectoris colore & caude².

¹ Hist. An. Bk ix. 256.
² The three words ‘pectoris & caude’ are not in Aristotle.
The Trochilus is smallest of all birds, with a long tail\(^1\) always cocked up, and a bill somewhat long but very slender, it is nearly reddish-brown in colour. The nest it makes is outwardly of moss and inwardly of feathers, wool, or down, but mainly of feathers. The nest has the form of an upright egg standing on one of its ends, while in the middle of one side there is a little postern as it were, by which the bird goes in and out. It sometimes builds its nest at the back of a house or in sheds thatched with straw, but usually in woods. It also is a bird that roves alone, and never flies in flocks; nay more, so often as it meets another of its kind it forthwith declares war, and fights. Wherefore the birds with plumes of gold-colour that they wear on their heads like golden crowns, which pass the summer in Bavaria in woods, and in the winter flock to towns, are not the Reguli of Aristotle, as I presently shall prove, but the Tyranni.

**OF THE RUBECULA AND THE RUTICILLA.**

\'Εριθακος, \(\eta\) εριθεα, rubecula, in English a robin redbrest, in German eyn rötbrust or eyn rötkelchen.

Φωικουρος, and, as another text has it, \(\phiωικουρο\)ς, in Pliny phoenicurus, the ruticilla of Gaza, in English a rede tale, in German eyn rötstertz.

**ARISTOTLE.**

The Rubecula and the Ruticilla feed on worms. Rubeculæ and Ruticillæ, as the birds are called, change into one another, and what in winter is the Rubecula in summer is the Ruticilla\(^2\), while they hardly differ from each other save in colour of the breast and tail.

\(^1\) Turner evidently means the Wren (\(Troglo\)dyes \(p\)ar\(v\)ulus\)), but with this the ‘long tail’ does not agree; perhaps there is a misprint.

\(^2\) As Sundevall remarks, Aristotle probably only meant that the Redstart was called \(\phiωικουρο\)ς in summer and \(\epsilonριθακο\)ς in winter. Sundevall ascribes the misinterpretation to Gaza, whose work Turner admittedly used. This is the more likely as the section of Aristotle quoted concerns birds which change their plumage and note at different seasons.
Omnia, que hic Aristoteles de duabus aitibus istis conscripsit, Plinius ex ipso in opus suum transcript. Sed uterque hic in re, auctum parabilius magis quam sua experientia nixus, a veritatis tramite longissimè aberravit, nam utraque aitis simul conspicuit, & rubeculae domitae, & in cauis alia, eandem perpetuo formam retinet. Quin & eodem tempore nidulantes, sed modis longè diversis sepissimè in Anglia uidi. Rubecula, quae non fecus æflate quam hyeme rubri habet peclus, quam possit longissimè ab oppidis et uribus in densissimis uepretis, & fruticissis ad hunc modum nidulatur. Vbi multa querna reperit folia, aut quernis similia, ad radices ueprium, aut densorum fruticum, inter ipsa folia nidum construit: & iam construètum, opere ueluti topiario folii congetit. Nec ad nidum ubi; patet aditus, sed una tantum via ad nidum itur. ea quoque parte, qua nidum ingreditur, longum fruit ex folii ante hostiim uidi usèlibulum, cuius extremam partem pastum exiès, folii caudat. Hæc, que nunc scribo, admodum ueru observau, non tamen inficias iuerim, quin aliter nidulari possit. Si qui alium nidulandi modum obsenauerint, êdant, & huusmodi rerum studiofis, & mihi cum primis nó parum gratificabuntur. Ego, quod uidi, aliis candidè fum imperitus.

Phœnicurus, quem rubicillam¹ uocat, in excauatis arboribus & (quod seepè expertus sum) in rimis & fissuris murorum, poscularum ædiï, in medijs urbis, sed ubi hominum minor frequentia concurfat, nidulatur. Phœnicurus mas nigro est capite, & cauda rubra, caetera fœmine, nisi quod subinde cantillat, similis. Caudam semper motitat uterque. Phœnicura fœmina, & proles adeo rubeculae pullis similes sunt, ut uix ab oculatifisio discriini possint. Verùm motu caudæ dignoscuntur. Rubeculae licet caudam moveant, poffquam tamen submisent, statim erigunt, nec tremit bis aut ter more ruticillarù. Ruticillæ enim simul atque caudam movere ceperint, non cessant donec ter aut quater simul

All that Aristotle here has written of these two birds Pliny has copied from him into his own work. But in this matter each of them, relying on the tales of fowlers more than on his own experience, has wandered greatly from the path of truth. For both the birds are seen at the same time; moreover tame Rubeculae, when fed in cages, constantly retain the same appearance. Moreover I have very often seen the birds in England nesting at the same time, though in very different ways. The Rubecula, which has a ruddy breast no less in summer than in winter, nests as far as possible from towns and cities in the thickest briers and shrubs after this fashion. Where it finds oak leaves in plenty, or leaves like the oak, it builds its nest among the leaves themselves close to the roots of briers or the thicker shrubs: and when completed covers it with leaves as if with topiary work. Nor does access lie open to the nest on every side, but by one way alone is entrance gained. And at that place where it enters the nest the bird builds a long porch of leaves before the doorway and, on going forth to feed, closes the end with leaves. But, what I now describe, I first observed when quite a boy, nevertheless I am not going to deny that it may build otherwise. If any have observed another way of nesting, let them tell it, and they certainly will not a little gratify the students of such things, myself among the first. I have imparted truthfully to others what I saw.

The Phoenicurus which he [Gaza] calls the Rubicilla nests in hollow trees and (as I often have had experience) in chinks and cracks of walls and outhouses in the midst of our towns, though where the throng of men is not so great. The male has a black head, a red tail, but otherwise is like the female, save that he repeatedly utters a little song. Either sex flirts the tail continually. The female Phoenicurus and its brood are so much like young of Rubecula that they can scarcely be distinguished by the sharpest eye. But by the motion of the tail they may be recognised. For the Rubeculae, although they move the tail, yet, after they have lowered it, at once raise it again, nor does it quiver twice or thrice as does that of the Ruticilla. For no sooner have the Ruticilla once begun to move the tail than they go on till they have lightly moved it three or four times altogether
leuiter mouerint, ut alas, juniores auiculae cibum à matribus efflagitantes, motitant. Rubeculae in aestate, ubi in syluis satis superb; alimenti suppetit, nec ullo infestantur frigore, (qua res cogit illas in hyeme ad urbes, oppida & pagos confugere) cum prole ad desertissima quaæ; loca fcedunt. Quare, minus mirandum est, rubeculas in aestate non paffim occurrere. Ruticillas quid miri est in hyeme no esse obuias, quam per totam hyemem delitescant? Adhæc cum rubeculae pulli, in fine autumni perfeclam ferè in pecloribus rubedinem nacli, ad pagos & oppida propriis accedunt, ruticillae, quaæ antea per totam aestatem cernebantur, disparent, nec amplius in proximum usque uer cernuntur. Quæ quum ita se habeant, quid Aristotelis aut illi hoc referentibus erroris ansam præbuerit, facile quùis poteʃt colligere.

DE RUBETRA.


Sed quum auium suprà commemoratarum altera feminibus herbarì uescatur, & altera hordeo & tritico, & batis Arist. uerminora fit, delegeda est auicula quæpiam, quæ solis uermibus pasclur, qualis est auicula Anglis slonchattera, aut mortettera dice, & Germanorum klein brachnogelchen. Hæc si batis non sit, nihi prorsus ignota esè. Porror illa, quam Angli linotam, & Germani flasfincam nocant, ueteribus, si Ruellio, credimus, erit miliaria.
just as young small birds flutter their wings soliciting meat from their mothers. In summer, when there is enough and more of food found in the woods, and they are not troubled by any cold (a thing which forces them in winter to resort to cities, towns, and villages), Rubeculae retire to the most solitary places with their young. And so it is no marvel that Rubeculae do not occur in summer everywhere. And what wonder is it that Ruticillae are not met with in winter, since throughout the whole of winter they are hidden? And further, when the young Rubeculae, having almost assumed the full red on their breasts at the end of autumn, come nearer to towns and villages, the Ruticillae, which were hitherto seen during the whole summer, disappear and then are no more noticed till the following spring. Wherefore, things being thus, anyone may easily perceive what gave a handle to Aristotle or to those who reported this error to him.

**OF THE RUBETRA.**

*Bartis*, in Latin called Rubetra, is by Aristotle classed among the little birds that feed on worms. Beyond this I cannot guess at all what sort the bird may be. Yet Gybertus Longolius¹ believed that the Rubetra was the Linaria or the Miliaria, because it often perched on brambles. But since the Bunting of the English sits so commonly on brambles, what forbids that bird from also being called the Batis? On this account we have no certainty as to what name, British or German, should be given to this bird.

But inasmuch as of the birds mentioned above the one eats seeds of grasses, and the other wheat and barley, and as Aristotle's Batis lives on worms, some small bird must be chosen which eats worms and nothing else. Now such a little bird is that called by the English Stonchatter or Mortetter and the klein brachvogelchen of the Germans. If this be not the Batis, it is quite unknown to me. Besides that which the English call the Linot and the Germans the flasfinc must be the Miliaria of older works, if we believe Ruellius².

¹ For this author see Introduction.
² Ruellius wrote *De natura stirpium libri tres* (1536) and edited one or more medical or other works.
Rubicilla—Salus

DE RVBICILLA.

Πυρρόωδας, rubicilla, Angli. a bulfinche, Germa. eum blōdīnīaet.

Rubicillam Aristoteles inter eas aues connumerat, quae uernibus uescuntur: sed pluribus uerbis cam non describit. Ego nominis etymologiam secutus, rubicillam [p. 131] Anglorum bulfincam, & Germanorum blouduncam esse conijcio. Nam omnium, quas unquam uidi auium mas in hoc genere, peflore est longè rubidīsimō: fāmina uerò peflore toto est cinereo, caetera mari similis. Sed ut faciūs omnes intelligent, de qua aue scribam, magnitudine passeris est, rostro breuiissimo, latissimo, et nigerrimo, lingua latiore multō qua pro corporis magnitudine. Pars ea linguae, quae cibi sapores dijjudicans, oris cālum tangit, carnea & nuda est, reliquae partes cornea pellicula obducuntur. Supremam auis partem plūnae cyanee contegunt. cauda nigrā est, & capite etiam nigro, uescitur libentissimē primis illis gemmis ex arboribus ante folia & flores erumpentibus, & femine canabino. auis est imprīmis docilis, & fīsīlam uoce sua proxīmē imitatur. nidulatur in sepiibus, & uia quattuor excludit, ut plurima quīng. eundem colorem per totum annum seruat, nec locum mutat. Quae quum ita se habeant, non potest hæc atricapilla esse, ut quidam uolunt, utcūng, extremō linguae acumine carere uideatur.

DE SALO, QVI GRÆCE ἄνυθος dicitur.

ARISTOTELES¹.

[p. 132] Salus uitae commoditate, & partus numero commendatur, sed alterius pedis clauditate cedit. Sali & florī fanguinē misceri negant, tā ingens inter salum & florī feruet odiū. Salo etiam preliū cū aśīno est, propterea quod aśīnus fpi-

¹ Hist. An. Bk IX. 89, 22, 14.
Rubicilla—Salus

OF THE RUBICILLA.

Πυρρόνιλας¹, rubicilla, in English a bulfinche, in German eyn blödtfinck.

Aristotle counts the Rubicilla among those birds which feed on worms: but he does not describe it in more words. I, following the derivation of the name, conjecture that it is the Bulfinc of the English and the bloudvinc of the Germans. For of all the birds I ever saw the male of this kind has by far the reddest breast: the female however has the breast wholly grey, though otherwise like the male. But, that all may understand more easily about which bird I write, it is the size of a Sparrow, with the beak particularly short and broad and black, the tongue much broader than is in proportion to its body. That part of the tongue which discriminates the flavour of the food and meets the palate of the mouth is flesh-coloured and naked, while the other parts are covered with a horny pellicle. Bluish grey feathers clothe the upper parts. The tail is black and the head also black. It feeds most greedily on those earliest buds, which burst out on the trees before the leaves and flowers, as well as hemp-seed. It is the readiest bird to learn, and imitates a pipe very closely with its voice. It nests in hedges where it lays four eggs or five at most. It keeps the same colour throughout the year, and does not change its home. And since these things are so, it cannot be the Atricapilla, as some will have it, though it may appear to lack the point at the tip of the tongue.

OF THE SALUS, WHICH IN GREEK IS CALLED αἰγιθος.

ARISTOTLE.

The Salus is well thought of for its skill in gaining a livelihood, and for the number of its young, although it suffers from lameness in one of its feet. And men deny that the blood of the Salus and the Florus ever mixes, for so great an enmity rages between the birds. There is war also between the Salus and the Ass,

¹ Sundevall thinks that the Πυρρόνιλας is the Redbreast, but the description does not agree with his idea. Another reading is πυρρουράς.

T.
netis sua ulcera scabendi causa atterat: tum igitur ob eam rem, tū etiam quōd si uocem rudentis audierit¹, oua abigat per abortum, pulli etiam metu in terram labantur. Itaque ob eam iniuriam aduolās, ulcera eius rostro excauat.

PLINIUS².

Aegithus auis minima cum asino pugnat, spinetis enim se scabendi causa atterens, nidos eius dissipat, quod adeò pauet, ut uoce audita omnino rudentis oua eijciat, & pulli ipsi metu [p. 133] cadant: igitur aduolans ulcera eius rostro excuauat.

DE SITTA.

Sitta, Anglice a nut iobber, Germanice eun nushäffer oder eun meyspecht.

ARISTOTELES³.

Sunt & ei, quæ sitta dicitur, mores pugna-ces, sed animus hilaris, cōcinnus, compon utiae facilioris. Rē maleficam illi tribuunt, quia rerum callat cognitio, prolem numerofam facilemcj progignit, cariofa ligna contundens, ex coisses, quos inde eruit, uiictit. Sitta⁴ aquilæ oua frangit, aquila turn ob eam rem, quem etiam quōd carniuora est, aduerfatur.

Aucicula, quam Angli nucipetam uocant, & Germani meyspechtum, paro maximo paul̓d maior est, pennis cyaneis, rostro longiusculo, & per arbores eodem modo, quo picus ascendent, & easdem uicis gratia contundit: nuces rostro etiam perforat, & nucleos commedit. nidu-latur in causis arboribus more pici, uoce ualde acuta & fonora est.

¹ Aristotle has ‘καν ὄγκησταε, ἑκβάλλει τὰ ὄλα καὶ τοὺς νεόττους,’ as if the bray of the ass shook the eggs and young out of the nest. Gaza seems to have had the reading ἐκτίκτουσι for ἐκπίπτουσι
³ Hist. An. Bk IX. 91, very freely rendered.
⁴ Hist. An. Bk IX. 17
because the Ass is wont to rub its sores against the thorn-bushes to scratch them, therefore for this cause, and also because the bird has heard the brayer's voice it prematurely drops its eggs, while even nestlings fall down to the ground with fear. So for that injury (the bird) attacking it scoops out its sores.

**Pliny.**

The ΑΕgithus, a very little bird, wages war with the Ass, because it, rubbing against thorn-bushes to scratch itself, destroys the nest, and this the bird dreads so much that, if it merely hears the brayer's voice, it drops its eggs, and the young also fall to the ground with fear. Accordingly attacking it the bird scoops out its sores.

**Of the Sitta.**

Sitta, in English a nut jobber, in German eyn nushäkker or eyn meyspecht.

**Aristotle.**

That bird which is called Sitta has pugnacious habits but a cheerful disposition; it is elegant and well adapted to get food with ease. Yet men attribute witchcraft to it, since it is cunning in knowledge of affairs; it produces numerous young with ease; hammering on rotten trees, it lives upon the grubs which thence it digs. The Sitta breaks the eggs of the Aquila, on which account, and also since it is carnivorous, the Aquila is its enemy.

The small bird which the English call the Nut-seeker and Germans the meyspecht is somewhat bigger than the biggest Parus, with blue plumage and a longish beak. It climbs trees in the same way as the Picus, and hammers the same for food; it also bores nuts with its beak, and eats the kernels. It nests in hollow trees, as does the Picus, while its note is very sharp and loud.
Struthio—Sturnus

DE STRUVTHIONE.

Στρονθός, λιβυκός, struthio, aut struthiocamelus, Anglice an oifris, Germanicè uyn strau[ß].

Aristoteles ¹.

Struthio, etiam libicus, eodem modo partim auem, partim quadrupedem refert, quippe qui non ut quadrupes pennas habeat, ut non auis sublimis non uolet, nec pennas ad uolandum commodas gerit, sed pilos similes. Itē quae quadrupes fit, pilos habet palbebrē superiores, & gibber² capite, parte colli superiores est. Itab cilia habet pilosīora, sed quae auis fit, infrà pennis integitur. Bipes etiam tanquam auis, biffulcus tanquam quadrupes est. Nō enim digitos habet, sed ungulam bipartitam. quarum rerum [p. 135] caufa est, quōd magnitudine non auis, sed quadrupes est. Magnitudinem enim aüiī minimam esse propè dixerim, necesse est. Corpus enim molem sublimem mouere, nequaquam facilē est.

DE STVRNO.

Ψάρος, sūrnus, Anglice a sterlyng, Germanicè uyn sūr/ oder uyn sūr.

Aristoteles ³.

Surnus niger est, albis maculis distintus, magnitudine merulae.

Plinius ⁴.

Surnorum generi proprium, cateruatem uolare, & quodam pilae orbe circumagi, omnibus in medium agmen tendentibus.

¹ De partibus Animalium, iv. 14.  
² No doubt a misprint for ‘gaber.’  
³ Hist. An. Bk IX. 102, freely rendered.  
⁴ Hist. Nat. Lib. x, cap. xxiv.
OF THE STRUTHIO.

Στρονθός, λιβυκός, struthio or struthiocamelus, in English an oistris, in German eyn strauss.

Aristotle.

The Struthio, or Libyan bird, in like manner partly recalls a bird, partly a quadruped, seeing that it, unlike a quadruped, has wings, and yet, unlike a bird, it does not fly aloft, nor has it feathers fit for flight, since they resemble hairs. Likewise as if it were a quadruped, it has hairs on the upper eyelid, while the head and upper portion of the neck are bare. So also it has somewhat hairy eyelashes, yet it is covered with feathers beneath, as if it were a bird. Moreover it is biped like a bird, but yet it is cloven-footed like a quadruped. That is, it has not toes but a divided hoof. The cause of these things is that in its size it is not a bird but a quadruped. For I would almost say that a bird’s size must be extremely small, for it is by no means easy to move aloft a body when the mass is vast.

OF THE STURNUS.

Psiρός, sturnus, in English a sterlyng, in German eyn stär or eyn stör.

Aristotle.

The Sturnus is black, varied with white spots, and of the bigness of a Merula.

Pliny.

It is peculiar to Starlings in their kind to fly in crowds, and wheel about as it were in a ball, all tending to the middle of the band.
Tinunculus—Tetrao

DE TINVNCVLO.

Κέγχρος, tinunculus, Anglice a kistrel, or a kaftrel, or a steingall.

Aristoteles¹.


Tinunculus colore multò magis est fuluo quam reliquì accipitres, & corpore paruo. Auiculas insequitur, & ut quidam mihi retulère, papiliones interdum. In causis nidulatur arboribus, & in templorum muris, & æditoribus turribus, ut apud Germanos Argentorati & Colonie, & apud Anglos Morpeti obseruauit. pullos etiam diu nolantes tantisper adit, dū īpsi ex proprio uenatu uiuere potuīt.

DE TETRAONE.

Τετρικζ, òvpaζ, tetrao, Anglice a bustard, or a biſlard, Germanicè eyn trāp/ oder eyn trap gānſi.

Aristoteles³.

[p. 137] Tetrix, quam Athenienfes uragem uocant, nec terræ, nec arbori fuum nidum committit, sed frutici⁴.

Plinius⁵.

Decet tetraones fuus nitor, absolutaq nigritia, in supercilij sici cocci rubor. Alterum eorum genus uulturum magnitudine excedit, quorum

¹ Hist. An. Bk vi. 2.
² Hist. An. Bk ii. 88, Bk viii. 50, Bk vi. 6.
⁴ Aristotele has χαμαζήδους φυτοῦς.
⁵ Hist. Nat. Lib. X. cap. xxii.
OF THE TINNUCULUS.

Keγχρίς, tinnunculus, in English a kistrel or a kastrel, or a steingall.

Aristotle.

All birds with crooked claws\(^1\) breed somewhat sparingly, save the Tinnunculus, and it of all the crooked-claw kind lays the most eggs. For of this bird four young have been already found, while it is evident that more might be produced. The stomach in Tinnunculus is not unlike a crop, whereas it is the only one of all the crooked-claw kind that drinks. Its eggs are red—like scarlet.

The Tinnunculus is of a much more fulvous colour than are other Hawks, and small in body. It chases little birds, and, as some men have told me, butterflies at times. It nests in hollow trees, church walls, and lofty towers, as I have seen in Germany at Strassburg and at Cullen, and in England at Morpeth. It also feeds its young long after they can fly until such time as they can live apart by hunting for themselves.

OF THE TETRAO.

Τέτριξ, oυραξ, tetrao, in English a bustard or a bistard, in German eyn träp or eyn trap gänss.

Aristotle.

The Tetrrix, which Athenians call the Urax, trusts its nest not to the ground, nor to a tree, but to low-growing plants.

Pliny.

Their glossy plumage well becomes the Tetraones, as does furthermore their perfect blackness and the scarlet redness of their eyebrows. But one kind exceeds in size the vultures and recalls their colour-

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\(^1\) For Aristotle's groups of Birds see p. 35.

DE TYRANNO.

Tyrannus, Anglice a nyn murder, Germanicè eyn neun mürder/ oder eyn gold hendlun.

ARISTOTELES 1.

Vescitur & uermibus tyrannus, cui corpus non multō amplius quà locufťæ, crīsta rutila ex pluma elatiufcula, & cætera elegans, cantuq; suauis hæc auicula est.

Quanquam Aristoteles unum tantum tyranni genus faciat, Colonienfes tam en auncypes tria genera esse contendunt. Primum vocant die grosse neun murder, quod Angli etiam schricum nominant: & ego Aristoteles mollicipitem esse coniciço: sturnum magnitudine aequat, color eius à cyaneo ad cinereum uergit. Secundum genus eiusdem est coloris, cuius & superius, sed pafferem magnitudine non excedit. Hoc genus etiam in aues fœuit. Tertium genus, quod Aristotelis tyrannus est, auicula est regulo paulo maior, crīsta rutila redimita, & cæteris generibus (si auncipibus credere phas 2 sit) cede 3 & corporis effigie non diffimīlis. Secundum & tertium tyranni genus apud Anglos hacenus nunquam uidere

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1 Hist. An. Bk VIII. 41.
2 Of course a misprint for 'fas.'
3 No doubt this should be 'sede.'
ing. There is no other bird, except the Struthio-
camelus, which attains so great a weight of body,
growing to such a size that it may even be caught
upon the ground. The Alps produce them, as do
northern lands. In mews they lose their flavour.
They die of stubbornness by holding back their
breath. Very near them are those which Spaniards
call "Aves tardæ" and Greece "Otides"; they are
condemned as food. For when the marrow issues
from the bones, disgust at the smell follows there
and then¹.

Of the Tyrannus.

Tyrannus, in English a nyn murder, in German eyn neun
mürder or eyn gold hendlin.

Aristotle.

The Tyrannus also lives on worms². Its body is
but little larger than a locust's is. This little bird
moreover has a somewhat upright crest of reddish
feathers, and is otherwise pretty; its song is sweet.

Though Aristotle makes but one kind of Tyrannus, yet
the bird-catchers of Cullen state that there are three. The first
they call die grosse neun mürder, which the English name
the Schric for their part, this I take to be the Molliceps of
Aristotle. In size it equals the Sturnus, while its colour verges
from blue to grey. The second kind is of the same colour
as the foregoing, but in size does not exceed a Sparrow.
Furthermore this kind is cruel towards other birds. The third
kind, which is Aristotle's Tyrannus, is a small bird
which is little bigger than the Regulus, adorned with a red
crest and not unlike the other kinds (if it be right to trust
the fowlers) in its haunts and form of body. It has not ever
happened to me hitherto in England to observe the second or
the third kind of Tyrannus and, although the first exists in
England, it is known to very few. Yet there are some who
know it and who call it Shric.

¹ See p. 106. ² See p. 35.
Trynga—Turdus

DE TRYNGA.

Tryngas, trynga, Anglicè a watter hen, or a mot hen, Germanicè eyn wasser hen.

Aristoteles

Lacus & fluuios petunt iunco, cinclus, & trynga, quæ inter hæc minora, maiuscula est, turdo enim æquiparatur: omnibus his cauda motitat.

Iam, ut sciatis, quam auem tryngam esse putem, auis tota pulla est, excepta ea caudæ parte, quæ podicem tegit, ea enim candida est, & tum cernitur, cùm caudam erigit. alis parùm ualet, atque ideo breues factit uolatus. In flagnis, quæ nobilium ædes obducunt, & in pisçinis apud Anglos plerunq. degit. Si quando periclitar, ad arundineta densìora folet confugere.

DE TVRDO.

Kìxìa, turdus, Anglicè à thrusche, Germanicè eyn frammefuôgel/ oder eyn wachholteruôgel.

Aristoteles

Turdorum tria sunt genera, unù uisciuorù, quod nisi uifco resinaφ non uescitur, & magnitudine picae est. Alterum pilare, quod sonat acute. & magnitudine melulae est. Tertium quod iliacum quidam uocat, minimum inter hæc, minus´que maculis distinctum est. Mutat & turdus colorè, quippe collo æestate uarius, hyeme distinctus specetetur, uoce tamè eadè est. Turdus nidos ex luto, ut hirundines, facit, in excelsis arboribus, ita deinceps continuato opere,

1 Hist. An. Bk VIII. 47.
2 Another reading is πόγαργος; but this word is elsewhere used of an Eagle, cf. p. 30.
OF THE TRYNGA.

Τρυγγας, trynga, in English a water hen or a mot hen, in German eyn wasser hen.

ARISTOTLE.

The Junco and the Cinclus live on lakes and streams, as does the Trynga, which among these little birds is somewhat largest, for it equals in its size a Turdus; all these wag their tails.

And now, that you may know what bird I think the Trynga is, it is an altogether dusky bird, save that part of the tail which lies above the vent, for that is white and only visible when it erects its tail. It is weak on the wing, and therefore takes short flights. In England for the most part it haunts moats which surround the houses of the great, and fishponds. If danger ever threatens it is wont to flee to the thicker reed-beds.

OF THE TURDUS.

Κιχλα, turdus, in English a thrusche, in German eyn krammesvögel or eyn wachholtervögel.

ARISTOTLE.

There are three kinds of Turdi, one of which is called the Viscivorus, since it feeds on naught but mistletoe and gum, and is of the size of a Pica. The second, the Pilaris, which has a sharp note, is of the same size as a Merula. The third, which some call the Iliacus, is the least of them and less marked with spots. The Turdus changes colour also, since it may be seen mottled upon the neck in summer, while in winter it is spotted, though its voice continues similar. The Turdus makes its nests of mud, as do Hirundines, and places them in lofty trees, the building
ut quasi catena quædâ nidorum contexta uidetur.

**Plinius**

Turdi hyeme maximè in Germania cernuntur.

[p. 141]

**Turdus primus.**

*Primum turdi genus Angli peculiariter nominant a thrushe, & Germani (nisi me fallant auncipes, qui me sic vocare docuerunt) eyn crammesfuogel. Secundum genus Angli uocant a throsfel, aut a maius, Germani eyn drosfel, aut eyn dursfel. Tertiû genus ab Anglis a uynghthrushe, & à Germanis eyn uueingaerdsuoegel munçapatur. Hic turdus utrinque iuxta oculos, & in peçlore & in ipso alæ flexu, intus & foris maculas habet latiusculas rubras. Huius nidum nunquam uidi: nec mirum, quum per æstatem apud nos nusquam uidetur. primum genus non nisi hyeme in Anglia cernitur, aut si uidetur, rarum est. Secundum genus per totum annum appetit maculoso ulde peçlore, & cātus fui gratia à multis in caueis alitur. Nidum intus ex luto aut lignorum carie liquore mixta, & artificiose leuigata, foris ex musco in ramis arborum aut fruticium facit.*

**DE VIREONE.**

*Ἀλυπλοῦ, uireo, Anglicè a uuituol, Germanicè eyn witwol/ oder eyn weldwail/ oder eyn kersentife.*

**Aristoteles.**

Vireo docilis, & ad uitæ munia ingeniosus [p. 142] notatur, fed malè uolat, nec grati coloris est. Vireo totus uiridis ex obscurō est, hyeme hic non uidetur, fed æstiuo solstitio potissimum uniet in conspectum. Discedit exortu arcûri syderis, magnitudine turturis est.

1 Hist. Nat. Lib. x. cap. xxiv.
2 Hist. An. Bk ix. 89.
3 Hist. An. Bk ix. 98.
4 These two words are not in Aristotle.
being so continuous as to seem almost like a chain of nests woven together.

**Pliny.**

The Turdi are in winter chiefly seen in Germany.

The first kind of Turdus Englishmen particularly name a Thrushe, and Germans (if the bird-catchers, who taught me so to call it, lead me not astray) eyn crammesvogel. The second kind the English call a Throssel or a Mavis, but the Germans say eyn drossel or eyn durstel. The third is named a Wyngthrushe by the English and eyn weingaerdsvogel by the Germans. This Turdus has broadish red spots on each side near the eyes, as well as on the breast, and also both inside and outside at the bend of the wing. But I have never seen its nest, nor is that wonderful, since it is nowhere to be seen with us throughout the summer. The first kind is not observed in England save in winter, or, if it be seen, it is unusual. The second kind, with a much spotted breast appears throughout the year, and by many is kept in cages for its song. It builds a nest, moreover, inwardly of mud or else of rotten wood tempered with moisture and smoothed skilfully, and outwardly of moss, upon the boughs of trees or shrubs.

**Of the Vireo.**

*Χλωρίων, vireo, in English a witwol, in German eyn witwol or eyn weidwail, or eyn kersenrife.*

**Aristotle.**

The Vireo is teachable, and is remarkable for its capacity for the duties of life; but it flies badly and is not of a pleasing colour\(^1\). The Vireo is wholly of a dusky green; it is not seen in winter here, but comes chiefly in view about the summer solstice, it departs at the rise of the star Arcturus, and is of the size of the Turtur.

\(^1\) Cf. p. 86.
Vireo—Upupa

Vireonem (quod fecio) in Anglia nunquam uidi, sed in Germania seepissimè. turtur paulò minor est. Vocem fìstulæ grandiusculæ, quæ infinam cantionis partem fußinet, similèm emittit. Nidum in ramo quem in summa arbores suspendit, in formam rotundam construit, ne cui hominum aut serarù ad eum pateret aditus.

DE VPVPVA.

ἔπος, upupa, Anglice a houpe, Germanicè eyn houp/ oder eyn widhopff.

ARISTOTELES¹.

Upupa potissimùm nidum è ﬂercore hominis facit. Mutat faciē tempore æstatis & hyemis, sicut & cæterarum quoque adrestium plurimæ.

[p. 143] Upupa² una in suo genere non nidificat, sed ﬂtípite arborem fubiens, parit fine ullo ﬂtramento, in cauis.

Literatores pleriq- omnes Britannici, upupam eam nominant auem, quam barbari ab alarum ﬂrepitu, unannellum nuncupant, & ἵππος sua lingua lapuuingam vocant. Verum istorum crassus error facilè autori-
tate Plini¹ de upupa ita scribentis, confutatur: Upupa (inquit) obfœcena alías paftu auis, crista uifenda plicatili, cótrahens eam, ﬂubrigens per longi-
tudinem capitis. Hæc ille. Sed Grammaticis nosfiris hic error est facilè condemnandus, nam nusquam in tota Britannia upupa (quod ego fecio) reperiri potest, apud Germanos tamen frequentissima. Ea est magnitudine turdi, alis per interualla fuscis, albis & nigris pennis dißinēitis, crista in capite ab ea parte rostri, qua capiti committitur, ad extremum usq; occiput in lōgitudinem porrigitur, quam pro adfeclibus ﬂuis aut contrahitur,

I have never seen the Vireo in England, so far as I know, but very often when in Germany. It is a little smaller than the Turtur. It gives forth a note like that of the large pipe which plays the bass part of a song. This bird suspends its nest upon a branch at the top of a tree, and fashions it in rounded form, that it should not afford access to any man or beast.

OF THE UPUPA.

ἐποψ, upupa, in English a howpe, in German eyn houp or eyn widhopff.

ARISTOTLE.

The Upupa builds its nest chiefly of human dung. It changes its appearance in the summer season and in winter, as very many other wild birds do. The Upupa only of its kind builds not a nest, but entering the trunks of trees lays eggs in cavities, without any litter.

Nearly all British writers name that bird Upupa, which from the noise of its wings foreigners call Vannellus, though in their own tongue the former call it Lapwing. Yet their gross error may be easily refuted on the authority of Pliny, who thus writes of the Upupa.

The Upupa (he says) is a bird filthy otherwise as to its food, but to be noticed for its folding crest, which it contracts and then erects again along its head.

These are his very words. And yet our scholars may be well excused this their mistake, for nowhere in the whole of Britain is the Upupa to be found (so far as I know), though in Germany it is most plentiful. The bird is of the bigness of a Thrush, with wings barred here and there with brown, and marked with black and white feathers; the crest extends from the part of the bill which joins the head to the extremity of the occiput, along the length, this it contracts
aut dilatat, ut equis aures arrigit aut demittit. tibia
est ualde breuibus, alis obtusioribus, & lentè admodum
volat.

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DE VринатриCE.

Koλυμβρις, uринatrix, Angi. a douker, GERi. eηn
dicher.

Aristoteles 1.

Alia degunt quidem in fluido, uiФтumф inde
petunt, fed aêrem nô humorë recipiunt, & foris
pàere folent. Complura huius generis sunt,
partim greffilia ut lutra, latax & crocodilus:
partim uolucre ut mergi & uринatrices.

Aristoteles uринatricis unum tantùm genus comme-
morat, ego tamen tria uринatricum genera uidi. Horum
primum totum nigrum est. & fi cirrum, què in capite
gerit, exceperis, mergo, quo tamen triplo minor est:
cetera, quod ad corporis attinet effigie, non diffimile est.
& hoc genus nautæ nostrates lounam nominant, ali
Doukeram. Secundum genus turdo non maius est,
anati colore & corporis effigie simile, et hoc Angli me-
diam uринaticem nuncupat. Tertium genus adeo nuper
ab ouo exclusum refert anserculum, ut nifi rostrum
huius paulò tenuius esset, ægrè alterum ab altero dif-

cerneræs. Non enim pènas, sed lanuginem qua-
dam, earum loco obtinet. Degunt hæc plerunque tria
genera in aquis flagnantibus, aut fluuijs non ad-
modum rapidis, in quorum ripis arundines & carices
nascentur.

DE Vvltvre.

Гўϕ, vultur, Anglice a geir, Germanice eηn геir.

Aristoteles 2.

Vultur nidificat in excelsissimis rupibus:
unde fit ut rarò nidus & pulli cernantur.

1 Hist. An. Bk I. 6, somewhat freely rendered.
or spreads again according as it is disposed, as a horse pricks or droops its ears. It has very short legs and rounded wings, while it flies somewhat slowly.

**OF THE URINATRIX.**

Κολυμβίς, urinatrix, in English a douker, in German eyn ducher.

**ARISTOTLE.**

But other animals in truth live in the water and thence seek their food, yet they breathe air and not moisture, and they are wont to breed out of the water. Now there are many of this sort, in part going afoot, as are the Lutra, Latax, and Crocodilus; and in part winged, as the Mergi and the Urinatrices.

Aristotle makes mention only of one kind of Urinatrix, but I have observed three kinds of Urinatrices. Of these the first is wholly black, and, except for the tuft it bears upon its head, is not unlike the Mergus otherwise, so far as the outline of its body goes, though it is one-third less in size. This is the sort our sailors call the Loun, but others the Douker. The second kind, no bigger than a Thrush, is like a Duck in colour and in form of body; this the English call the middle Urinatrix. The third kind, when it is but newly hatched, recalls a Gosling, so that if its beak were not a little more slender you could scarce discern the one bird from the other. For it has no quills, but in place of these a sort of down. These three kinds for the most part live on stagnant waters or not very rapid rivers, on the banks of which grow reeds and sedges.

**OF THE VULTUR.**

Γύρυ, vultur, in English a geir, in German eyn geyr.

**ARISTOTLE.**

The Vulture nests in very lofty rocks, and thus it chances that the nest and young are rarely to be seen.

Plinius¹.

Vulturum præualent nigri, nidos nemo attīgit, ideo etiam fuère, qui putarent ex aduerfo orbe aduolare falso. Nidificant enim in excel-sissimis rupibus. Fœtus quidem fæpè cernuntur fere bini. Vmbricius auruspīcū nostro æuo peritissimus, pārere tradit tria, uno ex his reliqua oua nidūq̣ lustrare, moxq̣ abijcere. Triduo aūt antè aut biduo uolare eos, ubi cadauera futura sunt.

Perpera Grammatici quidam uulturē, gryphem non-minant, uulturem & gryphem ineptē confundentes, quum gryps fit a gryphen, animal ut creditur notatile & quadrupes.

¹ Hist. Nat. Lib. x. cap. vi.
Wherefore Herodotus, the father of the rhetorician Briso, thought that Vultures winged it from some other world unknown to us, his argument being that nobody had ever seen a Vulture's nest, although a multitude at once come into sight when following an army. And yet, however difficult it be to see the nest of this bird, still it has been seen at certain times. Vultures lay two eggs each. Besides it is a well-known fact that animals which feed on flesh do not breed more than once a year.

Pliny.

Of Vultures the black are most plentiful. No one has ever reached their nests and therefore there have been some who erroneously thought that they flew hither from another world. They really nest in very lofty rocks. Indeed the offspring, generally twins, are often seen. Umbricius, the most skilful augur of our age, asserts that they lay three eggs, with one of which they cleanse the others and purify the nest, and afterwards throw it away. And that they fly three or two days beforehand to a place where carcases are likely to be found.

Quite wrongly certain scholars call the Vulture Gryps, confounding foolishly the Vulture and the Gryps, since the Gryps is a Gryphon, or an animal believed to be both winged and quadruped.
SI Plinium, Aristotelē, Aristophānē aut quemcūq alium idoneum scriptorem te legere contingat, locos huiusmodi cōmines, quales exemplī tantū gratiā subiiciam, in procincū, libro inscriptos chartaceo habere expedit, ut ad eos aues omnes, de quibus apud istos legis, certo referas, quod si feceris, nō dubito quin in auiī cognitione multūm breui fīs profecturus.

Appendices habentes.

Olor, anfer, anas, gallinaceus, perdix, ciconia, ascalaphus, tarda, nocīua, passer.

Ingluuvies habentes.

Gallinaceus, palumbes, perdix & columbus.

Gulas totas amplas habentes.

Anfer, anas, gauia, cataracla, & tarda.

Gregales aues.

Olor, anfer minor, grus, & platea.

Frugibus uicitantes.

Palumbes, columbus, turtur, & uinago.

Lacus frequentantes.

Ardeola, albardeola, ciconia, gauia cineria, iunco, cinclus, trynga, calidris, & alcedones.

Mare frequentantes.

Alcedo, carulus, gauia alba, fulica, mergus, rupex & cataracla.
COMMON PLACES, REFERRING TO BIRDS, FROM ARISTOTLE.

If it should happen that you read Pliny, Aristotle, Aristophanes, or any other suitable writer, it is fitting to have ready for use such Common Places of this kind as I will add for the sake of example only, written in a note-book, that you may with certainty refer to all those birds, of which you read in their pages. And if you do this, I doubt not that in a short time you will make great progress in the knowledge of birds.

Those having appendices.
Olor, anser, anas, gallinaceus, perdix, ciconia, ascalaphus, tarda, noctua, passer.

Those having craws.
Gallinaceus, palumbes, perdix, and columbus.

Those having wide gullets.
Anser, anas, gavia, cataracta, and tarda.

Gregarious birds.
Olor, the smaller anser, grus, and platea.

Those living on crops.
Palumbes, columbus, turtur, and vinago.

Those frequenting lakes.
Ardeola, albardeola, ciconia, the grey gavia, junco, cinclus, trynga, calidris, and alcedones.

Those frequenting the sea.
Alcedo, carulus, the white gavia, fulica, mergus, rupex, and cataracta.

1 That is caca or blind-guts.
2 κύανος.
3 Perhaps χαραδρύος.
Annies & lacus frequentantes.
Olor, anas, phalaris, urinatrix, bosca, coruus palmipes, uterque anfer, uulpanfer, capella, penelops, aquila marina.

Spinas appetentes.
Spinus, carduelis, & auriuittis.

Culicibus uititantes.
Pici Martij, galgulus, culicilega.

Vermibus aut ex toto aut magna ex parte uititantes.
Fringilla, paffer, rubetra, luteola, & pari omnes, ficedula, atricapilla, rubicilla, rubecula, syluia, curuca, alylus, florus, montifringilla, regulus & frugilega.

Plures locos cuique licebit huius modi excogitare.
Common places

Those frequenting rivers and lakes.

Olor, anas, phalaris, urinatrix, bosca, the web-footed corvus, either kind of anser, vulpanser, capella, penelops, the sea aquila.

Those feeding on thistles.

Spinus, carduelis, and aurivittis.

Those feeding on insects.

Pici martii, galgulus, culicilega.

Those feeding on worms, either wholly, or for the most part.

Fringilla, passer, rubetra, luteola, and all the pari, ficedula, atricapilla, rubicilla, rubecula, sylvia, curuca, asylus, florus, montifringilla, regulus, and frugilega.

Any one may devise more Places of this sort.
PERORATIO AD LECTOREM.

ON deerrunt forfan, qui mihi hoc uicio uerfuri sunt, quòd libellus iſte meus coniecturarum multò plus quàm certarum adfertionum in ſe contineat: quibus respondeo, in re ardua, & nondum fatis explorata mihi conduſtiu & modoſtiu uideri, hēſitanter & modoſte coniectando ueſtigare, & ita inquirere, quàm temere & impudenter de rebus incompertiu pronunciare. Quòd autem de moribus & medicinis auium nihil hic fcripſerim, in cauſa fuerunt, temporis anni infcelicitas, & anguſtia (breuiori enim ſpacio quàm duobus mensibus totus liber
[p. 150] conſcriptus eſt) & pecuniae copia minor, quàm quae huiuſmodi negoſcio abſoluendo ſufficeret. Nam quis ſine magna pecuniae ui in longinquas regiones proficiſci potefſt, peregrinarum auium formas & mores contemplaturus, & illic diu ea de cauſa manſfurus? Quis familia aut uocatione fua, aut alijs negoſcijs foras prodire prohibitus, ſine maximis impenſis omnia auium genera ab aucupibus ad ſe ex uarijs müdi plagis allata, curare poterit? et iā allata, quò mores ad plenum perueſtiget, in uiuarijs & caueis ſine maximis ſumptibus alere quis ſufficiet? Hoc
PERORATION TO THE READER.

HERE perhaps will not be wanting those who will attribute this to me as a fault, that this little book of mine contains within it many more conjectures than sure statements: to whom I reply, that it seemed to me much more prudent and becoming on a subject that is difficult and not yet sufficiently explored to tread doubtingly and modestly by conjecture, and so to enquire, than to pronounce rashly and immodestly on things undetermined. Moreover that I have written nothing here of the habits and medicinal nature of birds, I have for reasons the unsuitability of the time of year and its brief span (for the whole book was written in a space of less than two months) and a supply of money too slender to suffice for the perfection of a work of that kind. For who without great command of money can set off for distant regions, to observe the forms and habits of foreign birds, and there to stay a long time for that purpose? Who, hindered by his household or his calling or other business from going abroad could without vast expense give heed to all the kinds of birds brought to him by fowlers from the various quarters of the world? and when brought, who would be capable without vast expense of keeping them in vivaria and cages, that he might investigate their habits to the full?
The well-known Alexander, the greatest and most renowned of all kings of the nations in power, war-like glory, and zeal for learning, weighing this in his mind, presented Aristotle with 480,000 crowns, when he was about to write on animals, since he knew that the philosopher could not carry out that task with his private means, for the purpose of hiring fowlers and hunters, and for keeping in vivaria the animals which had been already caught, and provided to that end. If such an Alexander existed anywhere to-day, I should not doubt that a new Aristotle would be born again for us from somewhere, who not only would display to us all the animals, with few exceptions, of that former Aristotle, with their habits, their medicinal properties, and their latter-day names, but would inform us of many more animals than the former, and those not less useful to the human race. That Aristotle therefore wrote so happily about so many living creatures is to be put down rather to the liberality of Alexander than to the diligence of Aristotle: though that too must be praised without stint. For if the bounty of Alexander had not supplied to Aristotle those animals to be examined, he never would have published so complete a History of Animals for us. Therefore let the ease-loving critics of the present day cease to wonder that the histories of plants, birds, fishes, and quadrupeds are written in this age with less spirit, less learning, and less diligence than that with which they were treated in a former age. To-day whatever of value is brought to light is published at the private expense of very zealous men of slender fortunes and printers. But now I return to you, most ingenuous reader, and beseech you once and again that, if any bird of foreign aspect meet
Peroratio

auis, paucis mihi illam, addito nomine gentis tuæ, depingere non dedigneris, & mihi & omnium bonarũ literarum studiosis scies te magnopere gratificaturum, nam nec faět in secunda huius libri editione ero immemor, nec quicquã, quod ad hoc disciplinæ genus pertinet, mihi exploratum, te celabo.

Vale. Coloniæ Calend.

Martij.
your eye, you will not disdain to depict it for me in a few words, with the addition of the name of your family, and you will know that you will greatly gratify both me and those who are zealous of all good learning, for I shall be neither unmindful of the act in a second edition of this book, nor conceal from you anything, which pertains to this kind of teaching, and is found out by me.

Farewell. At Cullen. 1st March.
ΛΑΒΕΡΤΟΣ Ὁ ΓΕΛΡΙΕΤΣ
τῷ τῆς βίβλου σπουδαίῳ ἀναγρωστῇ ἐν πράττειν.

Ποίκιλα εἰ ἐθέλεις πτην' εἰδέναι ὁ φιλόμουσε Τότε ἐστιν θαρρῷ τὰς ἀνάγρωσιν ἄγα.
Οὐδεὶς ἐστιν ἀκριβῶς περὶ τούτων γράψειν ἱατρῶν,
Ωστε βλέπετις τῇ δυνάμει γραφέντα βιβλίοις.
Τοῦ ὅπως σπουδαίοι Τουρνήρου τὸν πόνον οὖτον
Τπέλαβεν: τούτου καὶ ἀπόλαυσε καλῶς.

Ἀλλα.

Φωνὰς μανθανέμεν πτηνῶν χιλίας ἀναγρωστά
Βούλεις Τουρνήρου τὴν βιβλίον ὄνεεο.
Τοῖα γὰρ οὐκ ἱατρῶν μηδείς πρὸς ἐγράφατο πάντων,
Ἐν βιβλίῳ τούτῳ, ποῖα δοθέντα βλέπεται.
Εἰ ἄρ' ἀβράδες τε σαφῶς, τῆς γραφθέσης ἀπολαύειν
Βιβλίου ἀνδάνει, κίνει δὲ ὄρο πόδον.

Aliud eiusdem ad candidum lectionem.

Accipe quae docti medici tibi cura parauit
Turneri, notas quisquis auebis aues.
Has tibi tam uarijs manus ingeniofa figuris
Expressit, noffe ut quamlibet inde queas.
Ne quoque non posses has pernouiffes, Latinas,
Anglas, Teutonicas, Argolicasq; facit.

Liber ad lectionem.

Quisquis aues uarias de nomine deñ; figuris
Nofce cupis lector, me lege, doctus eris.
Nec dabo, crede mihi, tibi munera parua laboris:
Nam uolucrum res est maxima feire genus.
Crebrò Græmatici h hic hærët, stät κωφά πρόσωπα,
Nec facit officio συλλυπα τυβα μάτις.
Hic ipsos medicos errare miserrima res est,
Quos decet hæc animis nota tenere suis.
Seu Maro sit pueris, seu Nafo poëta legendus,
Seu fuerint quæuis scripta legenda tibi:
Dispeream, si non multò tibi maximus error
Occurræt passim, ni bene nòris aues.
Auctorum nimiam placet haud posuiffe cateruam.
Vt tibi, quæ teneo, nostra probare queam.
Plinius hic ille est, & Aριστοτελες, reliquìq.,
Quotquot de volucrum nos ratione docent.
Hoc scio, Turneri miraberis ipse laborem,
Docìrinam, iummam cum pietate fidem. [p. 156]

Αδηλον.

En tibi, quos döli dedit hic pia cura labores
Turneri medici, candide leflor habe.
Inuenies nimium quæ te didicisse imuabit,
Hinc uenient fructus in tua nota boni.
Appendix.

Excerpta ex opere Ioannis Caiei Britanni de Rariorum Animalium atque Stirpium Historia, fol. 17—23.

De Haliaeeto.

De Auibus. HALIAETOS, id genus aquilae est, quod ex mari lacubusq, predam querit, unde nomen inuenit. Is magnitudine Milui est, capite albis & fuscis distincto [f. 7 b] lineis, vt melino: rostro aquilino: oculis in medio nigris, in ambitu aureis: lingua ferè humana, nisi quod ad radicem vtrinq, habet appendicem: colore per summa aëtus, per ima albo: gutturae maculis notato rufis vt & ventre, pectore medio pure candido: crure crasso & squamoso: pede vncungu & ceruleo: digitis quatuor, per superna ad dimidiam longitudinem etiam squamosis, ad reliquam incisitis, per inferna asperis & aculeatis tenacitatis causa: & his tam validis, vt flexos vix villa vi extendas. Prædator is est piscium, discessis decidentis corporis impetu aquis, ex eisque viuit. Et quamuis ex pisce viuat, fidipes tamen est utroque pede, non altero palmipes, ut vulgar putat. Giraldus Cambrensis libro de Topographia Hiberniae, vbi de auibus biformibus agit, hunc Aurifrisi vocat: & altero pede aperno & vnguibus armato esse, altero claufo cum vulgo scribit. Supra magnitudinem corporis alæ longitudo est, quæ ad pedes Romanos duo & digitos vndecim extenditur. Inoleuit opinio istic apud nostrum vulgar in Britanni, eam inesse vim naturalem huic aui, ut quem conspexerit piscem, eum se quàm mox refupinare & conversere, atque ad sum-
APPENDIX.

EXTRACTS FROM THE WORK OF JOHN CAIUS 'DE RARIORUM ANIMALIUM ATQUE STIRPIUM HISTORIA' (1570).

OF THE SEA EAGLE.

THE Haliaeetos is that kind of Eagle, which seeks its prey from the sea and lakes, whence it takes its name. It is of the size of a Kite, having the head marked with white and dusky lines, as in a badger; an Eagle's beak; eyes black in the middle, golden in the outer circle; a tongue almost like that of man, except that at the root it has an appendage on either side; the colour above that of a Goshawk, white below; the throat marked with rufous spots, as is the belly; the middle of the breast pure white; the legs thick and scaly; the foot with curved claws and blue; four toes scaly above for quite half of their length, fissured for the rest, rough on the lower part and sharp for a firm hold; and these so strong that you can scarcely straighten them by any force when bent. This bird is a preyer upon fishes, the water being cleft by the shock of its body as it plunges, and on them it lives. And though it lives on fishes, yet it is cloven on each foot, not webbed on one as the vulgar think. Giraldus Cambrensis in his book on the Topography of Ireland, when he treats of unequally formed birds, calls this the Aurifrisius¹; and writes in common with the vulgar that it has one foot free-toed and armed with claws, the other closed (with webs). The length of the wing surpasses that of the body, for it extends to two Roman feet and eleven inches. In this affair an opinion has grown up among our common people in Britain, that such a natural power exists in this bird that any fish which it sees turns upwards on its back as soon as possible and rises to the surface.

¹ Aurifrisius must be the Latinized form of the old French name 'Orfraie'—which, like Osprey, is a corruption of Ossifraga.

**De anseri Brendino.**

Anser Brendinus, avis est marina, palmipes, figura anseris, sed magnitudine paulo infra, capite albo exiguo & curto, sed rostro nigro, à quo linea nigra ad oculum vtrumque ducitur, collo fusco, à pectore ad caudam ex dimidio corpore inferiori albo, coxendice murino (vt est Columbæ vulgaris color aut gruis) ex superiori, ad collum fusco, vt & ad caudam medio inter vtrumq, murino: alis item murinis, cum cauda longitudine paribus, sed pennis ad extremum obfuscatis. Cauda nigra est ex albo enata, pede nigro & palmato. Gregalis avis est & garrula. Ex pisce viuit, frequens apud nos per littora in Britannia. Vulgus Britannorum quod ad littus habitat à coloris varietate a Brendgofe nominat. Ornithopolæ Londinenses Bernaclum vocant, cum dicendum putem Berndclacum seu Brendclacum, quod antiqui Britanni atque item Scoti, anseres marinos, palufræ & la-cufræ omnes Clakes dicebant, cum tamen hodie corrupte dicimus Fenlakes & Fenlagges, cum dicendum fuit Fenclakes. Varium item colorem, Brend, feu per metatheśim Bernd ijdem appellabant. Vnde [f. 18 b] bernded feu brended id animal dicitur, quod in colore murino variegatum est albo, vt est hic anser. Non est
of the water, and therein floats as if stunned, in order that it may more readily become a prey to the winged creature. And therefore is its fat preserved with greater keenness by our fishermen because it is believed to have the same virtue. They are abundant with us on sea-coasts and in the Isle of Wight. Our people call it an Osprey. In its habits it is quiet and amenable, and most patient of hunger. For it has lived with me for seven days without food, in deep repose; unless indeed it was not habit that caused this, but hunger, which tames all things. It refused flesh when offered to it; I did not offer fish, because I understood that it lived on it. Its flesh is dark.

OF THE BRENT GOOSE.

The Brent Goose is a web-footed sea-bird, of the appearance of a Goose, but a little less in size, with the head small and short and white, but the beak black, from which a black line reaches to either eye; the neck dusky; the lower half of the body from the breast to the tail white; the flank mouse-coloured above (like the colour of a common Pigeon or Crane), dusky towards the neck, and also the intermediate parts towards the tail mouse-coloured; the wings also mouse-coloured, equal in length to the tail, but with the feathers darkened at the tip. The tail is black from a white base, the foot black and webbed. It is a gregarious and noisy bird. It lives on fish, and is common with us in Britain about the coasts. The common people of the Britons who live on the coast, name it a Brendgose from the varied nature of its colouring. The London bird-dealers call it Bernacle, yet I should think that it ought to be named Berndclac or Brendclac, because the Britons of old, as also the Scots, called all the Geese whether of the sea, marshes or lakes "Clakes," though at the present day we corruptly say Fenlakes and Fenlagges¹, when we should say Fenclakes. The same people, moreover, call anything variegated Brend or by metathesis Bernd. Whence an animal is said to be bernded or brended which is variegated with white upon a mouse-coloured ground², like this Goose. It is not, there-

¹ According to this notion 'Grey-Lag' would be for 'Grey-Clak.'
² Possibly, then, 'Bergander' is for 'Bernd-gander.'
Anser Baffanus

ergo Scotorum Baffanus anser, qui in Baffe Scotorum
Infula nidum ponit atq oua, à qua nomen habet. In
hanc infulā rupem existentem, nec in summo quantam
Milius oberret (vt Poëta dixit) sed exiguum, venturi
štato anni tempore anferes, quo prius speculatu, qua
obferuatione prēmīfsis nuntius vtantur quàm ingredi-
untur: quo anni tempore hoc faciant, qua solitudine
infulæ, concludentibus fē incolis ad aliquot dies,
donec fē firmauerint anferes, ne abigant, quanta
multitudine atq densitate inuolent, sic vt in serenitate
folem adimant, quot pisces afferant, quot oua par-
ant, & quantos fructus in annos ex eis anferumq, plumi
atq oleo percipient infulani (nam Pupinorum pingu
edinem habent atq guftū) longum effet recensere.

De Anate Indica.

Eft apud nos ex India anas, eadem planē corporis
figura, eodem rostro & pede quo vulgaris, sed ex
dimidio maior ea & grauior. Caput illi rubescit vt
sanguis, & bona pars coniuncta colli à posteriore parte.
Id totum callofa caro est, & incisuris distincta: quas
ad nares finit, carunculam demittit à reliqua carne
figura separatam, qualis cygnis est, rostro coniunctam.
Nudum plumis caput est, & ea quoque colli pars quæ
rubescit, nisi quod in summo capite crisèa est plumea
atque candida, per totam capitis longitudinem pro-
[19] tenfa: quam, cum excandescit, erigit. Sub oculis ad
rostrī initium per inferna, inordinatae maculae nigrae
carni sunt inductae: & vna atq altera à summo oculo
ad superna eleuatæ. Oculus flauescit, separatus à
reliquo capite circulo nigro. Sub extremo oculo in
auerfum macula est singularis, separata à ceteris.
Rostrum totum est cœruleum, nisi quod in extremo
macula nigrescoit vna. Pluma illi per totum colli
proceffum reliquum, alba. Qua corporis collum iūgi-
tur, circulus est plumeus niger, rara pluma alba, ma-
culofus & inqualis, per ima angustior, per summa
latior. Posit eum per totum imum ventrem pluma
fore, the Bass Goose of the Scots, which has its nest and eggs on the Bass, a Scottish Isle, and thence takes its name. Now when at a certain season of the year the Geese are about to return to this precipitous island rock—not so big on the top as a Kite could hover over (as the Poet has said), but very small—it would be too long to recount what spying, what circumspection (scouts having been sent ahead) they use before they alight: at what time of year they do this, the solitary state of the isle, when the inhabitants shut themselves up for several days, until the Geese have settled down, lest they should drive them off, in what numbers and in what a throng they fly to it, so that in clear weather they obscure the sun, how many fishes they bring home, how many eggs they lay, and what profit the dwellers in the isle make annually from the feathers and the oil of these Geese (for they possess the fatness and the taste of Pupins).

**Of the Indian Duck.**

There is among us, a Duck from India, with exactly the same form of body, the same beak and foot as the common bird, but bigger by half and heavier. Its head is red as blood, as is a good part of the adjoining neck behind. The whole of this is callous flesh and marked with fissures: and where it ends at the nostrils it makes a caruncle like that in Swans, separated in form from the rest of the flesh, which joins the beak. The head and red part of the neck are devoid of feathers, save that on the top of the head is a white feathery crest, extending over the whole length of the head; and this the bird erects, when it is excited. Under the eyes to the beginning of the beak at its lower part irregular black spots are arranged on the flesh: and one or two reach upward from the top of the eye to the parts above. The eye is yellowish, being separated by a black ring from the rest of the head. Close behind the eye is a solitary mark, apart from the rest. The whole beak is blue save that at the tip one spot shews black. The plumage over all the rest of the neck is white. Where the neck joins the body, there is a ring of black feathers spotted and irregular—with an occasional white one—narrower below, broader above. Behind this the plumage is white over the whole of the belly below:
alba est: per summum corpus, fusca, sed ab circulo illo nigro pluma alba in summum diuista. Extremæ alæ atque cauda cum splendore virescunt, vt Cantharides. Tibiarum cutis fusca est, incisuris leuibus per circuitus ducta. Membrana per interualla digitorum pedis pallecit magis, vna atque altera resperfa macula fusca, incerta lege disposita, nisi in interuallo sinifiri pedis, vbi sex per digitii extremi longitudine disponentur. Tardo gradu incedit propter corporis grauitatem. Vox illi non qualis cæteris anatibus, sed rauca, qualis faucibus humanis catarrho obsessis. Mas maior est quam femina. Ea similis mari est, nisi quod non ita variegato corporis colore est. Viuit ex ceñofis aquis, & alijs quibus cætera vulgaris anas gaudet.

[De Anate Turcica sive Indica altera.]

Anati quidem similis est quæ Turcica sive Indica dicitur, sed quantitate & magnitudine corporis anfrærem sérè diceres. Tota est candida, nisi quod rostrum, tibiae, atque pedes rubent, genæ, item callofa carne, & rostrü tuber supra nares. Caro illi dulcis est, & vox sibilus. Sunt eius generis quædam, colore albo & nigro variegatae. In aqua viuit, locis sœ gaudet ceñofis vt cætera anates.

[De Pica marina.]

Pica marina (vt nostrum vulgus nominat) paulo maior est terreftri, coloris quidem varietate in corpore similis, sed colore pedis, digitorum numero, incisuris, cauda atque rostro admodum dissimilis, Nam pes rubet, & digito posteriori defituitur, nec incisuras habet is & tibia, sed impressiones quasdam, piscium squamis quàm similimas. Fissus est, sed ita in digitis vtrinque luxuriant cutis, quemadmodū in fulcis penē, vt ad natandum quoque pes factus videatur. Auis est Amphibios. Caudam curtam habet, rostrum longum atq, tenue, perpendiculariter latum, non teres, colore
and dusky over the upper surface of the body, but the white feathering above is divided by the black ring. The ends of the wings and the tail have a greenish gloss as in Cantharides. The skin of the legs is dusky, marked all round with slight fissures. The web in the spaces between the toes is paler, marked now and again with a dusky spot, arranged in no precise plan, except in those of the left foot, where six are distributed over the length of the outer toe. The bird moves with slow step on account of the weight of its body. Its voice is not like that of other Ducks, but hoarse; such (as comes) from the human throat when attacked by a catarrh. The male is larger than the female. She is like the male, save that she has not so varied a colouring of body. The bird gets its living from muddy waters, and those others wherein the other common Duck delights.

**OF THE TURKISH OR SECOND INDIAN DUCK.**

That which is called the Turkish or Indian is like a Duck, but (judging) from the bulk and bigness of its body you would almost call it a Goose. It is entirely white, except that the beak, legs and feet are red, while the cheeks also have callous skin, and there is a protuberance on the beak above the nostrils. Its flesh is sweet, and its voice whistling. There are some of this kind variegated with black and white. It lives upon the water, and delights in muddy places, as do other Ducks.

**OF THE SEA PIE.**

The Sea Pie (as our common people call it) is a little larger than the land Pie, yet like it in the varied colour of its body, while very dissimilar in the colour of the foot, the number of toes, their scutellations, the tail and the beak. For the foot is red and lacks a hind toe, nor has that member or the tibia scutellations, but merely marks, as like as may be to the scales of fishes. It is cloven-footed, but there is such an extent of skin on the toes on each side—almost as much as in Coots—that the foot would even seem to be formed for swimming. It is an amphibious bird. It has a short tail, a beak long and thin, vertically broad, not smooth, in colour
Appendix

in summo ad caput rubrum, per reliquum pallidum, nec eft in fine acutum, sed obtusum id. In mensa grata ausis eft.

De gallina Getula domestica.

Gallina Getula domestica, paulo minor nostra eft, [f. 20] colore in supernis obscurè ruffa, in infernis pallida, pluma capitis incomposita & erecta, crisfa ferrata, humili, simplici, carnea: gutturofa magis perpetùò, quàm nostra cum gloriunt: tibijs pedibusque plumosìs, maximè per exteriora & posterìora vt columbis, ne per interiorìes plumas gressìs impedirentur: cètera vt vulgarìs.

De Meleagride.


1 Possibly ‘palea’ is a misprint for ‘galea,’ comb.
red on the top near the head, pale on the remainder, nor is it
sharp at the end, but blunt. It is an acceptable bird for the
table.

**Of the Domestic Getulian Hen.**

The domestic Getulian Hen, is a little smaller than our
own, in colour dull rufous above, pale below, with an erect
crest of disintegrated feathers on the head, a serrated comb,
low, simple and fleshy: more continuously noisy than ours
are, when they cluck: with the legs and feet feathered, for
the most part outwardly and behind as in Doves, that the
progress should not be hindered by feathers on the inside,
otherwise it is like the common kind.

**Of the Meleagris.**

The Meleagris is a very beautiful bird, like to a Pheasant
in bigness of body, form, beak and foot: provided with a
hormy poll rising to an abrupt homy peak at the back, which
slopes down gently in front. Nature seems to have designed
to join and bind this to the lower part of the head by three
hanging lappets as it were; one on each side between the eye
and the ear, and also one on the middle of the forehead, all of
the same colour as the poll, so that it sits on the head in the
same way that the ducal cap does on that of the most noble
Duke of Venice, if that part which is usually in front be
turned behind. It is wrinkled round about below, but verti-
cally where it rises above. From the top of the neck to the
occiput spring certain erect black bristles (not feathers),
turned backwards. The eyes are wholly black, and equally
so are the eyelids and eyelashes around them, if you except
a mark on the top and back of each eyebrow. A kind of
callous flesh of a blood-red colour covers the lower part of the
head along its length; nature has designed that it should be
folded, and should not hang forward like the wattle of the
Fowl, and being led backward end in two acute processes
free from the head. From this flesh rise on either side
caruncles, by which the nostrils are clothed round about, and
by which the head is divided in front from the rest of the
pale-coloured beak. The lower edges of these by the beak
are also folded slightly under each nostril. What intervenes
Quod inter verticem & carnem est à dextra & siniistra parte, album deplume est, leui cœruleo mixtum. Color verticis atque apicis, idem prorsus est cu colore daëtyli. Tibiæ nigræ sunt, & in anteriori parte, squamosa incisura duplici notata: in posteriori nulla, fed leues, & veluti punctis quibusdam sui coloris resperfæ. Color illi sub faucibus exquisitè est purpureus: in collo obscurè purpureus: in cætero corpore per summa contuenti, qualis conßurgit si album & nigrum pollinem vtunque tenuiter tritum, colori fusco rarius aspergas, nec tamen commisceas. Tali colori maculae albae ouales aut rotundæ per totum corpus ineffe vifuntur, per summa minores, per ima maiores, comprehensæ interuallis linearum (vt apparit in plumarum compositione naturali) quæ fe mutuo interfecant obliquo hinc inde ductu, per summa tantum corporis, non item per ima. Id non ex toto corpore solum deprehendes, fed ex singulis auulisfis plumis. Superiores enim, obliquis lineis fe mutuo interfecantibus, aut, si mauis, orbiculis quibusdam ex albo & nigro (vt dixi) polline confeclis, & per extremitates coniunctis, vt in fauis aut rhetibus, maculas ouales aut


De Morinello.

Morinellus, auis nobis cum Morinis communis, stulta admodum est, fed in cibus delicata, eoque apud
between the poll and the flesh on the right and left is white and unfeathered, mixed with light blue. The colour of the poll and peak of the head is exactly the same as that of the toes. The legs are black, marked in front with a double scaly fissure, on the back with none, but smooth, and sprinkled as it were with some spots, of a peculiar colour. The colour below the jaws is exquisite purple; on the neck dark purple; on the rest of the body, if you look from above, it stands out as if you sprinkled black and white flour, ground very fine with dusky colour at intervals, and yet did not mix them up. On such a ground oval or round white spots seem to be imposed throughout the whole body, smaller above and larger below, arranged in lines at intervals (as appears in the natural structure of feathers) which cut one another here and there in reciprocal oblique arrangement, only on the top of the body, however, and not below. This you will observe not only from the body as a whole, but from individual feathers if plucked out. For the upper feathers, with their oblique lines cutting one another reciprocally, or, if you will it, with certain rounds composed of black and white flour (as I have said), and meeting towards the tips, as in honey-combs or nets, enclose oval or round white spots within dusky spaces: but the lower do not. Both, however, are arranged by a similar law, for on some feathers they are so joined in rows as to almost make acute triangles; in others so as to present an oval form. Of this kind there are three or four rows on each feather, so that the smaller are contained in the compass of the larger. At the tips of the wings and on the tail, spots lie along the length in equidistant straight lines. You can hardly distinguish between the cock and the hen, so great is the likeness, save that the head of the hen is wholly black. The voice is a shrill double cry, not more sonorous or louder than that of the Quail, but like that of the Partridge, except that the latter is lower, and not so clear. In running it is swift.

Of the Morinellus.

The Morinellus, a bird common to us and the Morini\(^1\), is very foolish, but delicate to eat, and on that account is a

\(^1\)- The people of a district in Northern France.
nos in summis delitijs atque pretio est. Imitatrix auis est. Ideo, vt Scops & Otus faltandi imitatione, ita hæc noctu ad lumen candelae pro capientis gestu capitur. Nam si is expandit brachium, extendit & illa alam: si is tibiam, & illa itidem. Breuiter quicquid gerit auceps, idem facit & ales. Ita humanis gestibus intenta auis, ab aucipe decipitur, & rhete obuelatur. Auis parua est, magnitudine Sturni, tribus tantum digitis anterioribus, posteriori nullo, vertice negro, genis candidis, coturnicis sero colore, si cinerici

[f. 21 b] parum admisceas, potissimum circa collum. Mori nellum voco duplici de causa, & quod auis est apud Morinos frequettissima, & quod auis stolida est, quæ stultitia græcis μωρότης dicitur. Eam ob rem nostri etiam Doterellii vocant, quasi stultitia delirantem dicant.

De Puphino sive Pupino.

Est auis quædam marina nostras, parui anatis (quàm βόσκαδα Græci vocant) magnitudine & figura corporis, pedibus palmatis & rubesccentibus, ad posteri or magis positis quàm cæteris palmipedibus exceptis pygocephelibus: rostro tenuiore magis latitudine se demittente, quàm longiore processu se extendente, quatuor incifuris rubris à summa, duabus ab ima parte fulcato, in colore pallentis ochræ. Quod inter has & caput est, subceruleum est, & ea figura qua luna est, cum exacti dies decem sunt à coitu. Per summa corporis totius nigrescit, nisi qua oculi sunt, qui in albo constituti sunt: per ima exalbescit tota, nisi summo pectore, qua nigrat. Viuit ex mari. Hunc nostri Puphimum dicunt, nos Pupinum à naturali voce pupin. Latitat in cavernis, vt charadrius. Eam ob rem educet è cuniculi caueva auis hæc est, loco non procul à mari posito, à venatore quodam immissa viuerra. In piscis vfu apud nos est in solenni ieunio per

[f. 22] quadragesimam: carne & guftu, Phocæ marinaræ haud dissimilis. Gregale animal est, & sua habet latitandi tempora, vt Cuculus & Hyrundo. Oua parit in terræ
very great luxury with us, and of great price. It is a mimic. And so, as the Scops and Otus are taken by an imitation of dancing, this bird is caught at night by the light of a candle according to the motion of the captor. For if he stretches out an arm, the bird lifts a wing; if he stretches out a leg, it does likewise. In short, whatever part the fowler plays, the bird does the same. So being intent on the man's actions, it is fooled by the bird-catcher and caught in his net. It is a little bird, of the size of a Starling, with only three fore-toes and no hind-toe, a black crown, white cheeks, and colour almost that of a Quail, if you were to mix with it a little ash-colour, especially round the neck. I call it Morinellus for a double reason, both because it is a bird most abundant among the Morini, and because it is a foolish bird, foolishness being by the Greeks called μωρότης. On this account our people also call it Doterell, as if they were to say doating with folly.

Of the Puphin or Pupin.

There is a certain sea-bird of our country, in size and form of body like a little Duck (which the Greeks call βόσκας), with webbed and reddish feet, placed nearer to the hinder parts than in other web-footed kinds except the Pygosceles: with a somewhat thin beak, rather more extended in breadth vertically than stretching laterally to a very great length, furrowed by four red grooves above, and two below, pale ochre in colour. The part lying between these and the head is bluish, and of such a shape as is the moon, when ten days have elapsed from conjunction. The bird is black on the upper surface of the whole body, save where the eyes are set, which are enclosed in white: but it is wholly white below, save on the upper breast, where it is black. It gets its living from the sea. This bird our people call the Puphin, we say Pupin from its ordinary cry of "pupin." It hides in holes, as the Charadrius does. And so it is driven out from a rabbit's burrow by a ferret turned in by any hunter in a place situated not far from the sea. It is used as fish among us during the solemn fast of Lent: being in substance and taste not unlike a Seal. It is a gregarious animal, and has its proper time for lying hidden, as the Cuckoo and Swallow.

Coruorans seu Mergus.

De Spermologo seu Frugilega.

Spermologus nofter à cornice nigra nulla in re differt, nisi morū innocentia, πρωλόβῳ seu inluuie, [f. 22 b] qua granum legendo continet, vt ad fuos referat: (est enim gutturofus) albo callo, qui in summo rostro est ad caput: & voce, quam habet gutturalem & raucam. Vnde forsan nostris, quibus nomina rerum multa Latina sunt & Græca (vt libro nostro de symphonia vocum Britannicarum diximus) rauce dicitur, quasi rauce Anglis, raurus Latinis sit dicendus: viæto quoque a coruo differt, quod frumento, hordeo, & cetero femine (vnde nomen σπερμολόγου inuenit apud Græcos) veʃcitur. Vescitur & vermibus, vbi frugis frumentique copia non est. Hinc rustici nostrī dubitant
It lays for the most part two eggs in rabbit burrows in the earth. It does not trust to its wings save in sight of the sea. It seems a lazy animal, but patient of injury. It eats flesh more readily than fish, and that of a rabbit in preference to that of any other animal, but in either case raw: it throws up what is boiled or roasted. Other human victuals it does not touch. In summer it washes itself but never drinks, so far as can be ascertained by observation; whether this was because salt water was wanting, I know not. The droppings are like those of an Accipiter. When there was nothing to eat it begged for food with its ordinary cry repeated and lowered, by calling out “pupin, pupin.” I kept one at my house for eight months. It bit with right good will those who supplied it with food or touched it, but in a mild and harmless way. It was satisfied with little food. For it is not a voracious bird, as our Corvorant is, which you (dearest Gesner) rightly name Corvus aquaticus and Mergus, while our people corruptly say Cormorant, not knowing from the derivation of the word that it ought to be called the Crow that devours. And this it does naturally, since it is endowed by nature with only one intestine straight and without a coil (as they say), on account of the vehemence of the natural heat, which very quickly consumes all that it swallows.

Of the Spermologus or Frugilega.

Our Spermologus differs in nothing from a black Crow, save in the harmlessness of its habits, in the προδοβός or crop, which holds the grain as it is picked up, that it may bear it to its young (for it is pouches): in the white callus, which extends from the base of the beak to the head; and in its voice, which is guttural and harsh. Whence possibly by our people, among whom there exist many Latin and Greek names for things (as we have said in our book on the Harmony of British words) it is called Rouke, as if it should be called Rauce by the English and Raucus by the Latins: also in food it differs from the Crow in that it eats wheat, barley, and other seeds (whence it got the name of σπερμολόγος among the Greeks. It also eats worms, when there is not plenty of corn or grain. Hence our country people doubt
maior ne sit ex eis vilitas agris dum legunt vermen, frugis & fementis pestem, an inutilitas hominibus dum vorant granum, hominis nutrimentum. Tanta tamen multitudo est, vt legibus condemnentur: innocens aliqui auis atq\_ vtilis. Agricolis enim teneri adhuc ex nido, in cibo sunt. Non nisi excelsis arboribus, id\_que societate quadam numero\_q, nidificant, cohabitant, & confident.

De Sacropsittaco.

Psittacorum plura esse genera obseruauit. Quidam enim pusilli, magnitudine videlicet turdi, toto quidem corpore virides sunt, sed caudam longam atque graci-lem, & eam aut flaum, viridem, aut puniceam habent. Quidem\_rurum grandes sunt admodum, cornicis magnitudine, ex toto punicei feu rubri, nisi sub imo ventre, [f. 23] extremis alis, & extima cauda, quibus partibus cum coruleo virescunt. His rostrum est magnu, cauum,pellucidum, & aduncum, medio tantum sui pallidum, vtroque extremo ex parte nigrum, & inferior maxilla tota nigr\_a, cu\_ius cau\_itatem lingua dur\_a & nigra c\_eterorum Psittacorum modo & forma occupat. V\_trinque gen\_ae, in cute rugosa, figura fer\_e triangul\_ari obtusa, candicant, rubris mollium pennarum ordinibus equidistanti parallelo induc\_tis, & a\_licubi etiam fine ordine. Oculus paruus, & in albo cilio cuticula\_ri con\_fitutus, pupillam habet nigr\_a, quam circundat aureus circ\_ulus. Digitos habet quatuor ita efformat\_os, vt videatur natura volui\_isse omnes anteriore\_r feciffe, retor\_is tamen duos in auerfum firm\_andi corporis ca\_u\_a. Hos Brasilia mittit, quos propter insignem magnitudinem Sacropsittacos nominamus. V\_eteres enim quod pr\_ec\_larum mag\_num\_que erat, facrum dicebant. Vt facrum os, facram a\_ichoram, facrum fal\_conem, quem hierofalconem dicunt, facrum pis\_cem, \_ep\_ov \_\_e\_\_s, facram famem, & facrum morbum. Huius generis imaginem quam \_a nobis accepisti, subiunge. \_\_eteros inter hos magnitudine medios, aliae regiones, vt inf\_ula \_\_e\_\_pania, Aegyptus, & India ferunt, sed colore vario. Ali\_e enim toto corpore cinereo, caud\_as habent fultas, breui\_ores & puniceas,

\_1 A misprint for Quidam.
whether their utility is greater in the fields, when they pick up the vermin, destructive to crops and seeds, or their harmfulness to men, when they devour grain, the food of man. However the number of them is so great, that they are condemned by the laws; harmless and useful birds in other respects. For, when still tender from the nest, they are used as food by country men. Only in lofty trees, and that as it were, in company and in numbers do they nest, abide and roost.

OF THE SACROPSITTACUS.

I have observed that there are many kinds of Parrots. For some that are small, namely of the size of a Thrush, have the whole body quite green, but the tail, which is long and slender, either yellow, green, or crimson. Again some are very large, of the size of a Crow, altogether crimson or red, except under the lower belly, on the ends of the wings, and on the tip of the tail, on which parts they shew greenish blue. These have a large beak, hollow, shining and hooked, pale only in its middle, partly black at each end, while the lower jaw is entirely black, the cavity being filled by the tongue, which is hard and black of the style and shape of that of other Parrots. The cheeks on both sides are whitish on the wrinkled skin, in shape almost obtusely triangular, the rows of soft red feathers being set in equidistant parallel lines, though in some places also without being in rows. The eye, small and set in a white ring of skin, has a black pupil, which is surrounded by a golden circle. It has four toes fashioned in such a way that nature seems to have intended to place all of them in front, but to have turned two of them back for the sake of supporting the body. Brasil sends us these birds, which we call Sacropsittaci on account of their remarkable size. For the ancients used to call that Sacrum, which was notable and large. As the os sacrum, anchora sacra, falco sacer—which they call Hierofalco, piscis sacer, iepôv μέvos, fames sacra, and morbus sacer. Compare with these the picture of this kind, which you have received from us. Other regions, as the Spanish Isle, Egypt and India, produce other kinds which are midway in size, but with various colouring. For some with the whole body grey have strong tails, some-

De Coruis albis.


Expletis iam quæ de volatilibus ad te scripsi mi Gefnere, suo ordine pisces confequuntur.
what short and crimson, and crescent-shaped at the tip. Others are entirely green. Others, though they are green on the body, are yellowish on the long tail. All have like habits, and the same kind of food, save that the Sacropsittacus eats bread soaked in beer, flesh, and even fish.

OF WHITE RAVENS.

In the year 1548, in the month of August, I saw two white Ravens from the same nest, and handled them at the very place in Cumberland of our Britain, bred on the property of a lord of that county, and trained for bird-catching just like hawks. For they had been taught both to sit quietly on the arm of the falconer, and when loosed to fly as quickly as possible to his call and sign even from a distance. Nothing unlucky followed them, as in the case of those white Swallows, about which Alexander Myndius wrote according to Ælian. For he who notes a white Raven notes the colour; as he does who notes a white Bear and a black Fox; both of which I have seen here in Britain from Muscovy. Yet I can hardly call a Fox black, although the common people call it black; but rather dusky or dull grey on the rest of the body. For it has only the cheeks and the legs, with the rump and the tail, dusky.

And now those things being finished which I have written to you of flying creatures, my Gesner, the fishes follow in due order.
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