

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

INDEX OF SUBJECTS.

- Acanthoderes nigricans*, double (?) leg, 548
- Acanthodrilus*, double tail, 565
- Acanthothyris*, double monster, 566
- Accessory hoofs of Ox, connected with supernumerary digits, 285
- Acherontia atropos*, colours of larvæ, 304, 305
- Acinopus lepelletieri*, extra legs, 498
- Actinometra*, variation in number of radial joints, 421; 4-rayed specimen, 437; 6-rayed, 437
- Adaptation, Study of, as a method of solving problems of species, 10; logical objection to the method, 12; speculations as to, avoided, 79; of species, approximate only, 11
- Adimonia tanaceti*, double (?) antenna, 550
- Agabus uliginosus*, double (?) leg, 548
- Agestrata dehaani*, extra legs, 491
- Agonum sexpunctatum*, double (?) leg, 547; *viduum*, double (?) antenna, 550
- Agra catenulata*, extra legs, 512
- Akis punctata*, double (?) antenna, 551
- Alaus sordidus*, extra legs, 508
- Aleochara mæsta*, extra legs, 488
- Allantus*, extra appendage, 544
- Allolobophora*, generative organs of, 160, 162, 165; duplicity of head and tail, 565; *lissidensis*, spermathecae, 165
- Allurus*, generative organs of, 164, 165; *putris*, 165; *hercynius*, *tetraedrus*, 164
- Alytes*, vertebræ, 127; axial duplicity, 561
- Amblynpeustes*, 4-rayed, 443; 6-rayed, 446; partial reduction of a ray, 443; partial duplicity of a ray, 446
- Ammocetes*, alleged case of eight pairs of gill-openings, 174
- Ampedus ephippium*, double (?) antenna, 551
- Amphicyclus* (Holothurian), tentacles not in multiples of five, 435
- Amphimallus solstitialis*, extra antennæ, 515
- Amphioxus*, number of gill-slits, 174
- Anagallis arvensis*, colour-variation, 44
- Anas querquedula*, division of digits, 392
- Anchomenus sexpunctatus*, extra antennæ, 523; double (?) antenna, *albipes*, *angusticollis*, 550
- Angora breeds, 55
- Anisoplia floricola* division of epistome, 454
- Annelids, segmentation compared with that of Chordata, 86; imperfect segmentation, 156; spiral segmentation,
- 157; variation in generative organs, 159; axial duplicity, 563
- Anomala junii*, extra antennæ, 515
- Anser*, spinal nerves, 130, 133
- Antedon*, variation in number of radial joints, 421; 4-rayed specimen, 436; 6-rayed specimen, 437; abnormal branching, 438
- Antenna developed as foot, 146, 147
- Antennæ, variation in number of joints, *Prionidæ*, 411; *Polyarthron*, 412; *Lysiphebus*, 412; *Donacia*, 413; *Forficula*, 413
extra, in Secondary Symmetry, 513–522; symmetry unknown, 522; arising from head, 551
supposed double, 548
- Anthia*, extra legs, 502
- Anthocharis cardamines*, colour-variation, 45
- eupheno*, 45; *ione*, 72
- Anthropoid Apes, Variation in Vertebræ, 116; teeth, 199; digits, 349
- Aphodius*, extra legs, 494
- Apis mellifica*, union of compound eyes, 461
- Appendages, joints of, 410
supernumerary, arrangement of evidence, 474
in Secondary Symmetry, 475; mechanical model illustrating relations, 480; duplicity of, 406, 539
- Apteryx*, brachial plexus, 130
- Apus*, extra flabellum, 536
- Aquila chrysaetos*, extra digits, 393
- Archibuteo lagopus*, extra digit, 392
- Arctia*, colour-variation, 46
- Arctocephalus australis* molars, 243
- Arge pherusa*, eye-spots, 295
- Arion*, sinistral, 54
- Aromia moschata*, extra legs, 485, 503, 512; double (?) antenna, 3 cases, 551
- Artemia*, *salina* and *milhausenii*, 96; *gracilis*, 100; relation to *Branchipus*, 96; segmentation of abdomen, 100
- Arteries, renal, 277; in a case of double-hand, 333
- Arthronomalus*, number of segments, 94
- Arthropoda, variation in number of segments, 87; Homœosis in appendages, 146; axial duplicity, 565
- Articular processes, change from dorsal to lumbar type, 109; variations in position of change, 110, 112, 114, 117, 122

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

INDEX OF SUBJECTS.

577

- Artiodactyla*, polydactylism, 373; syndactylism, 383; teeth, 245, 246
Ascidia plebeia, specimens having every fourth vessel of branchial sac dilated, 172
 Ascidians, variation in branchial structures, 171, 172; extra atriorepore, 456
Ass, canines, 245; molars, 246; absence of digital variation in, 360
Astacus fluviatilis, colour-variation, 44 variation in number of oviducal openings, 84, 152
 absence of male opening, 154
 absence of oviducal opening, 152, 153
 absence of opening from green gland, 154
 extra chelæ, 529, 537
 extra processes from chelæ, 536
 repetition of exopodite of antenna, 538
A. leptodactylus, extra dactylopodites, 532
A. pilimanus and *braziliensis*, apparent presence of female opening in males, 155
Asterias, variation of pedicellariæ, 429; arms, 439
 with 8 rays and 3 madreporites, 440; extra water-pore, 466
polaris, normally 6-rayed, 438
problema, *tenuispina*, undergo fission, 433
Asterina, 4-rayed and 6-rayed specimens, 440
Astroidea, arms, 439–441
Atèles, teeth, 205, 206, 207
Atriopore, extra, in Ascidians, 456
Attelabus, division of pronotum, 455
Aulastoma gulo, asymmetrical variation in generative organs, 167
Aurelia aurita, Meristic Variation of, 426; statistics as to, 428
 Auricles, cervical, in Man, 177; in Pig, 179; in Sheep and Goats, 180; are repetitions of ears, 180
 Baer, von, Law of, 8; its proper scope, 9; probably not applicable to cases of Discontinuous Meristic Variation, 571
 Balance between mammæ, 189; between teeth, 213
Balanocrinus, 4-rayed specimens, 436
Balanoglossus, two methods of development, 9; number of gill-slits, 174; extra proboscis-pore, 466; supposed relation to Chordata, 86
Brachchia, extra limbs, 554; spinal nerves, 141; vertebræ, 124; extra atrial opening, 465; axial duplicity, 561
Bdellostoma, individual and specific variations in number of gill-sacs, 173, 174
cirrhatum, *heptatrema*, *heterotrema*, *hexatrema*, 173; *bischoffi*, *polytrema*, 174
 Beech, fern-leaved, 25
 Bees, hermaphrodite, 68; union of eyes, 461; antenna modified as foot, 147
 Beetles, variation of horns, 38; antennæ, 411, 413; extra appendages in Secondary Symmetry, 475; legs, 483; antennæ, 513; palpi, 524; division of pronotum, 455
 supposed double legs, 544; supposed double antennæ, 548; supposed double palpi, 551
Bembidium striatum, extra palpi, 524
Bettongia, variation in molars, 258; *cuniculus*, *lesueri*, *penicillata*, 258
 Bilateral asymmetry, Homeosis in cases of, 465
 Bilateral Series, nature of, 88; Meristic Variation of, 448
 Bilateral Symmetry, 19; in variation of vertebræ, 128; in variation of Annelids, 167; in variation of mammæ, 183; in variation of teeth, 267; in cervical fistulæ, 175; in variation of ocelli, 292; in variation of digits, 402; in variation in antennæ of *Forficula*, 414; in variation of Radial Series, 427; in abnormal branching of *Antedon*, 438; in distribution of triasters in segmenting egg, 464; in abnormal union of blastomeres, 464
 as found in manus and pes, 369, 403
 influence on Secondary Symmetries doubtful, 557
Bipinnaria, extra water-pore, 466
 Birds, spinal nerves, 129; digital Variation, 390, 396
Blaniulus, mode of increase in number of segments, 93
Blaps, extra legs, 512; extra antennæ, attenuata, 522; double antenna, *chevrolati*, *cylindrica*, *similis*, 551
Blatta, variation in number of tarsal joints, discussion of, 63; facts, 415; regeneration of tarsus with 4 joints, 416
 Blue, as variation of red, 44
 Boar, Wild, extra digits, 383
Bombinator, vertebræ, 127

B.

37

- Bombus variabilis*, antenna developed as foot, 147
- Bombyx*, extra wing, *quercus*, 284; *rubi*, 282
- Box-turtle, digital variation, 396
- Brachial plexus, birds, 129; Man, 118, 135; Bradypodidae, 141
- Brachinus crepitans*, double (?) leg, 546
- Brachiopod, double monster, 566
- Bradypodidae, vertebræ, 118; brachial plexus, 141
- Brachytele*s, teeth, 205
- Branchiæ, variations in number, 172
- Branchiomma*, double tail, 564
- Branchipus*, segmentation of abdomen, 97; relation to *Artemia*, 96—101; species distinguished by sexual characters of male, 100
- ferox*, *spinulosus*, 97, 100; *stagnalis*, 100
- Brill, pigmentation of blind side, 468, 470
- Brimstone butterfly, variation in colour, 45; nature of pigment, 48
- Broscus vulgaris*, double (?) leg, 547
- Buccinum*, teeth, 262; double operculum, 457
- Bucorvus*, brachial plexus, 131, 132
- Bulldog, teeth, 210, 221
- Bulldog-headed races of Dogs, 57; of Fishes, 57
- Buteo latissimus*, extra digit, 393; *vulgaris* brachial plexus, 131
- Buzzard, extra digit, 392, 393
- Calathus fuscus*, extra eye, 280; extra legs, *cisteloides*, 506; *fulvipes*, 507, *grecus*, 505
- Callidium variable*, double (?) antenna, 551; *violaceum*, extra antenna arising from head, 551
- Callimorpha*, colour-variation of species of this genus, 46
- Callinectes hastatus*, extra spines on lateral horn of carapace, 557
- Callithrix*, teeth, 208
- Callorhinus ursinus*, teeth, 343
- Caloptenus spretus*, colour-variation, 44
- Calopteron reticulatum*, extra antennæ, 522
- Calopus cisteloides*, extra legs, 512
- Calosoma investigator*, extra antennæ, 523; *auropunctatum*, double (?) leg, 548; double (?) antenna, *sycophanta*, *triste*, 550
- Cancer pagurus*, maxillipede developed as chela, 149, 150; extra parts of limbs, 527; variations in chela, 530—536
- CANIDÆ, digits, 401; mammæ, 189
- teeth, 209—222; incisors, 210; canines, 210; premolars, 211; molars, 217
- CANIDÆ, teeth, 215; *azaræ*, 217; *cancerivorus*, 218; *corsac*, 214; *dingo*, 212, 215; *javanicus*, 209; *lagopus*, 220; *lateralis*, 212; *lupus*, 212, 213, 217, 220; *magellanicus*, 218; *mesomelas*, 212, 217; *occidentalis*, 214, 219; *pennsylvanicus*, 210; *primævus*, 209; *procyonoides*, 215, 220; *vetulus*, 217; *viverinus*, 212; *vulpes*, 210, 212, 213, 214, 219, 220; *zerda*, 220
- vertebræ, 122; cervical rib, 122
- Canines, supernumerary, Tiger, 225; Ass, 245; divided in Dog, 211
- Capreolus*, horns, 286; union of horns, 460; polydactylism, 371, 379
- Caprimulgus*, brachial plexus, 131
- CARABUS, antenna, supposed cases of double, *auratus*, *cancellatus*, *catenulatus*, *emarginatus*, *exaratus*, *intricatus*, *italicus*, *sylvestris*, 550
- antennæ, paired extra, *arvensis*, 523; *auronitens*, 522; *monilis*, 522; *sacheri*, 523
- leg, supposed cases of double, *creutzeri*, 547; *helluo*, 547; *intricatus*, 545; *melancholicus*, 548; *nemoralis*, 547; *septemcarinatus*, 547
- legs, extra in Secondary Symmetry, *auratus*, 511; *auronitens*, 511; *cancellatus*, 511; *catenulatus*, 512; *grecus*, 486; *granulatus*, 484; *irregularis*, 497; *italicus*, 512; *marginalis*, 484; *perforatus*, 484; *scheidleri*, 43
- palpi, supposed cases of double, *auratus*, *purpurascens*, *splendens*, 552
- pronotum, division of, *lotharingius*, 456; *scheidleri*, 455
- Carcinomata, multipolar cells in, 431
- Carcinus melenas*, external segmentation of abdomen changed by parasites, 95; extra parts in limbs, 527, 531, 534
- Carnivora, teeth, 209; vertebræ, 122
- Carp, bulldog-headed, 57
- Cassowary, feathers partially without barbules, 55
- Castration, parasitic, of crabs, 95
- Cat, variation in colours of, 48
- digits, 312, 313; polydactylism inherited, 323
- spinal nerves, 138
- teeth, 222
- vertebræ, 122
- Caterpillars, segmental Repetition of pattern in, 25
- Catocala nupta*, colour-variation in hind wings, 44, 46

INDEX OF SUBJECTS.

579

- Caudal fin, division of, in Gold-fishes, 451
Cebidae, teeth, 205
Cebus, teeth, 205
 Cell-division, variations in, 430
 Centrosomes, variations in number of, 430
Cephalotia, 458
Cerambyx, extra legs, 491; double (?) antenna, *cerdo*, *scopolii*, 551; extra antenna arising from head, *cerdo*, 551
Cercocetus, teeth, 204
Cercopithecus, teeth, 204; abnormality in, 204
Ceroglossus valdiviae, extra legs, 500
 Cervical vertebræ, assumption of dorsal characters, Man, 107
Cervus axis, molar, 246
rufus, premolar, 246
dama, extra digits, 379
 Cestoda, variation in segmentation of, 168; bifurcation and other conditions allied to duplicity, 565
Cestracion, teeth, 261
Cetonia, extra legs, *opaca*, 488, *morio*, 512
Chalcides, digital variation in the genus, 395
 Chamois, extra horns, 286
Charadrius, brachial plexus, 130, 132
 Chelæ, extra parts in Secondary Symmetry, 528; amorphous cases, 538; duplicity of, 540 developed from third maxillipede in *Cancer*, 149
Chelonia, axial duplicity, 563
Cheraps preissii, apparent presence of female openings in males, 155
Chiasognathus grantii, double (?) antenna, 551
 Chilognatha and Chilopoda, variation in segmentation of, 93
Chiropodus, supernumerary horn to generative sac, 457
 Chimpanzee, vertebræ, 116
 spinal nerves, 139
 teeth, 202
Chionobas, eye-spots, 295
Chironomus, double head, 565
Chiroptera, 208
 Chitons, repetition of eyes in, 26; variation in colours of scutes, 307
Chlaenius nigricornis, extra legs, 512; double (?) leg, *holosericus*, 546, *diffinis*, 548, *vestitus*, 548
Chærocampa, colours of larvæ, 304
Cholæpus, vertebræ, 118, 120; brachial plexus, 141
Cholornis, hallux absent, 397
 Chordata, segmentation of, 86
Chroicocephalus, brachial plexus, 130
Chrysemys, axial duplicity, 563
Chrysomela, division of pronotum, *fucata*, 455
Chrysomela, extra legs, *banksii*, 494; *graminis*, 498
 double (?) leg, *haemoptera*, 547
 double (?) antenna, *cacaliae*, 550
 Chub, bulldog-headed, 58
Cicindela sylvatica, double (?) antenna, 550
Cidarites, 4-rayed specimen, 441
Cimbex axillaris, antenna developed as foot, 146
Cimoliasaurus, imperfect division of vertebræ, 103
Ciona intestinalis, variation in number of stigmata, 172
Cistudo, digital variation in, 396
 Cladocera of salt lakes, 101
Clausilia bidens, extra eye, 280
Clavatella, variation in number of segments, 425; in number of eyes in each segment, 425
Clupea pilchardus, scales, 274
Clytbra quadripunctata, extra legs, 508
Clytus liciatus, extra legs, 508; extra antennæ, *arcuatus*, 522, *tricolor*, 522; double (?) antenna, *arcuatus*, 551
Coccinella decempunctata, *bipunctata* and *septempunctata*, colour-variation, 49, 572
 Cochin fowls, "silky" variety, 55
 Cockroach, variation in number of tarsal joints, 63, 415
Coleenterata, imperfect division, 566
Colias, colour-variation, 44; intermediates between *edusa* and *helice*, 44; varieties of *hyale*, 45
Colobus, teeth, 204
 Colour and Colour-patterns, variations in, 42, 288, 572
 Colour-variation, discontinuity of, perhaps chemical, 72; simultaneous, in segments, &c., 303
Coluber, double monster, 561
Columba, brachial plexus, 131, 134
Colymbetes sturmii, extra legs, 512; *adspersus*, double (?) leg, 548; *coriaceus*, double (?) antenna, 550
Colymbus, brachial plexus, 130
Conepatus chilensis and *mapurito*, teeth, 232
 Continuity, use of term as applied to Variation, 15; of differences in Environment, 5
 Copepoda, of salt lakes, 101
Cordylophora lacustris, polystomatous specimens, 566
 Correlation, between variations of nerves and vertebræ, 145; between Meristic and Substantive Variation, 126
Corvus, brachial plexus, 131
Corymbites cupreus, colour-variation, 43
 Counterparts, simultaneous variation of, 560

37—2

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

580

INDEX OF SUBJECTS.

- Cow, variation in number of teats, 188
 Crab, extra parts of appendages, 527—
 536; variation in segmentation of abdomen, 95
Crateronyx, extra wing, 285
 Crayfish, variation in number of generative openings, 152; repetition of parts of chelæ, 529, 532, 537; extra parts in antennæ, 538
Cribrella, abnormal branching of an arm, 440
 Crinoids, radial joints, 421; variation in number of rays, 435; 4-rayed varieties, 436; 6-rayed varieties, 437; 3-rayed and 5-rayed varieties of a 4-rayed form, 437; variation in number of canals in stems, 438; abnormal branching, 438
Crisia, division of embryos, 556
Crossarchus, teeth, 227—231; *zebra*, 230, 231
 Crustacea, theory of descent of Vertebrata from, 29; of salt lakes, 100; Secondary Symmetry in, 525; Homœosis in, 149
Cryptophyphnus riparius, extra legs, 509
Cryptophagus scanicus, *dentatus*, double (?) antenna, 550
Ctenodrilus, double tail, 565
Cucumaria plancti, with six radii, 433; double monster, 566
 aciculi, double monster, 566
Cuon, one lower molar absent, 209
Cupressocrinus, imperfect variation to 4-rayed state, 437; variation in number of canals in stalk, 438
 Curve of Frequency of Variations, 37, 64
 Cuvierian organs, variation in number of, 435
Cyclopia, 458
Cygnus olor, cervical vertebræ, 33; colour-variation of young, 44; *atratus*, brachial plexus, 130
Cyllo leda, variability of ocelli, 289
Cynælurus, teeth, 222, 224
Cynocephalus porcarius, extra molar, 204
Cyprinus carpio, bulldog-headed varieties, 57; *hungaricus*, ditto, 58; *auratus*, division of fins, 451
 Cyprus, 4-horned sheep, 285
Cypselus, brachial plexus, 131
Cystophora cristata, premolars, 238; molars, 243
 Dachshund, hallux in, 401; duality of hallux and pollex, 401
Dactylopodites, extra, 528
Dactylopsila, premolars, 255
 Darwin's solution of problem of Species, 5; views on Reversion, 77; on sudden Variation in eye-spots, 289
Dasyuridae, incisors, 247
Dasyurus, incisors, 247; premolars, 255; molars, 256
Dasyurus, viverrinus, variation in molars, 256
 maculatus, molars, 256
Deilephila euphorbiae, colours of larvæ, 305; *hippophaës*, 305
Dendarus hybridus, extra antennæ, 523
 Descent, Doctrine of, assumed to be true, 4
Diaptomus, colour-variation of eggs, 44
Dicotyles torquatus, incisors, 245
Didelphyidae, incisors, 246
Didelphys, teeth, 246, 258
 Digits, Variation of
 MAMMALS. *Capreolus*, 374; Cat, 313; *Cervus*, 379; Dogs, 401; *Erinaceus*, 397; *Elephas*, 397; Goat, 377; *Herpestidae*, 346; Horse, 360; *Hylobates*, 346; *Macacus*, 340; Man, 324; Mule, 360, 370; Ox, 374, 383; Pig, 381, 387; Sheep, 373, 380
 BIRDS. *Anas*, 392; *Aquila*, 393; *Archibuteo*, 392; *Buteo*, 393; Fowl, 390; *Larus*, 393; Pheasant, 393; *Rissa*, 396; Turkey, 393
 REPTILES. *Chalcides*, 395; *Cistudo*, 396
 Reduction in number, Man, 355, 358; *Artiodactyla*, 383
 Union of, Ox, 383; Pig, 387; Man, 355
 Variation in, associated with other variations, 399
 Inheritance of Variation in, 398
 Recapitulation of evidence, 400
 Dimorphic condition, its relation to the monomorphic condition, 37
 Dimorphism in Spinal nerves, 138; in position of generative openings in *Pachydrius*, 165, 168; in secondary sexual characters, 38
Diopatra, abnormal repetition, 159
Discoidea (Echinid), 4-rayed specimen, 442
 Discontinuity of Species, 5
 in Variation, a possibility, 17; suggestion as to its nature, 68, 568
 in chemical processes, 16, 48, 72
 in colour-variation, 43, 48, 72; in colour-patterns, 48
 in states of matter, 16
 of Meristic Variation perhaps mechanical, 70
 of Substantive Variation perhaps in part chemical, 71
 in the Variation of spinal nerves, 145
 in the Variation of the generative organs of Annelids, 168

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

INDEX OF SUBJECTS.

581

- Discontinuity in the Variation of digits, 407
 in Meristic Variation of Radial Series, 423
 partly dependent upon Symmetry, 568
- Discontinuous Variation, use of the term, 15
- Disease, analogy with Variation, 74
- Ditomus tricuspidatus*, double (?) antenna, 550
- Division of organs, a process of reproduction, 193
 of teeth, 268; of mammae, 193;
 of digits, 349, 369; of tentacles, 280; of radius of Echinid, 446; median, 454
- Dog, cervical rib, 122; hairless, 57; bulldog, 210, 221; digits, 401; nipples, 189
 teeth, 209—222; incisors, 210; canines, 211; premolars, 213, 215; molars, 220; deficiencies in Esquimaux, 215; in Inca, 216
- Dog-whelk, colour-variation, 48
- Domestication, variability falsely ascribed to, 266, 401
- Donacia bidens*, Variation in antennæ, 413
- Dorcadion rufipes*, extra legs, 512
- Dorking Fowl, digital variations, 390—395
- Dorocidaris papillata*, variation in pedicellariae, 429
- Double-foot, Artiodactyles, 378; Frog, 540; *Macacus*, 340; Man, 337, 338
- Double-hand, 325, 331
- Double Monsters, 559
- Double-thumb, 349
- Dromaeolus barnabita*, extra antennæ, 523
- Duck, no variation in number of digits recorded, 401; cases of absence of webs between toes, 401
- Duplicity of single members of series not distinct from other modes of addition, 193, 407
 of appendages, 406; in Arthropoda, 539; in Vertebrata, 539
 axial, 559
- Dutch pug, 57
- Dyschirius globulosus*, extra legs, 512
- Dytiscus marginalis*, extra legs, 512
- Eagle, extra digits, 393
- Ears, repetitions of, known as cervical auricles, 180
- Earthworms, variation of generative organs, 159; of segmentation, 157; asymmetrical arrangement of generative organs, 160, 161; table of arrangement of ovaries, 162; duplicity of head, 565, of tail, 565
- Earwig, variation of forceps, 40; of antennary joints, 413
- Echinoconus*, 4-rayed specimen, 441; alleged case of 3 rays, 441
- Echinodermata, Meristic Variation in, 432; variations of pedicellariae, 429; duplicity,
- Echinoidea, Meristic Variation of, 441; 4-rayed specimens, 441; partial disappearance of a ray, 443; partial duplicity of a ray, 446; 6-rayed specimen, 445; pedicellariae, 429; variation in number of genital pores, 446; symmetrical reduction of two rays, 443
- Echinus melo*, partial reduction of an ambulaçrum, 443
- Echinus sphaera*, partial reduction of an interambulaçrum, 445
- Ectrodaetylism, Man, 355, 358
- Elater muriinus*, extra antennæ, 522; *variabilis*, extra leg, 547; *hirtus*, double (?) antenna, 551
- Eledone*, supernumerary hectocotylus, 473
- Eleodes pilosa*, double (?) antenna, 551
- Elephas*, tusks, 244; hoofs, 397
- Elytra, said to have been replaced by legs in *Prionus*, 148
- Embryology, as a method of investigating problems of Descent, 7
- Emperor moth, ocelli absent, 289, 301; colour-variations of larva, 306
- Emu fowls, 55
- Enchytraeidae, generative openings, 165
- Encrinus*, variation in number of radial joints, 421; 4-rayed calyces, 436; radius bearing only one arm, 438
- Enema pan*, extra legs, 512
- Entomists, alter segmentation of some crabs but not of all, 95
- Enhydriis*, incisors, 211
- Epiglottis, division of, 451
- Epipodites, variation of in *Hippolyte*, 151
- Epistome (of Beetle), division of, 454
- Erebia blandina*, ocelli, 289
- Erinaceus*, variation in hallux, 397
- Eriphia spinifrons*, extra chelæ, 528
- Eros minutus*, extra legs, 487
- Esox lucius*, bulldog-headed, 58
- Esquimaux Dog, absence of first premolars, 214, 215, 221
- Euchloe*, pigments of, 72
- Eugeniacrinus*, 4-rayed specimens, 436
- Euprepia purpurea*, extra palpi (alleged), 524
- Eurycephalus maxillosus*, extra legs, 487
- Euscorpius*, double tail, 565
- Eye of *Palinurus* developed as antenna, 150
- Eye-colour of Man, 43
- Eye-spots, 288; Variation as a whole, 291; outer zones first to appear, 291; analogy with chemical phenomena,

582

INDEX OF SUBJECTS.

- 292; in Linear Series, 288, 293; simultaneous Variation of, 293; correlated with variation of neurulation, 293, 301
- Arge*, 295; *Chionobas*, 295; *Hipparchia*, 294; *Satyrus*, 295; *Morpho*, 296; *Vanessa*, 299; *Junonia*, 299, 300; *Pararge*, 300; *Saturnia*, 301, 302; *Raiidæ*, 302; *Polyplectron*, 450
- Eyes of *Clavatella*, variation in number, 425
- Eyes of Molluscs, 279; of Insects, 280; union of, 458, 461
- Feathers, of "hairy" Moorhen, without barbules, 55
- FELIDÆ, digits, 313
teeth, 223—226
- Felis brachyurus*, 224; *caligata*, 223; *caracal*, 224; *catus*, 224; *chaus*, 224; *chinenensis*, 224; *concolor*, 223; *domestica*, 223, 224, 225, 226; *eyra*, 223; *fontanieri*, 225, 226; *inconspicua*, 223; *jaguarondi*, 224; *javanicus*, 224; *jubata*, 224; *leo*, 226; *lynx*, 226; *maniculata*, 223; *manul*, 224; *minuta*, 223; *nebulosa*, 224; *onca*, 224; *pajeros*, 224; *pardalis*, 226; *pardus*, 223, 226; *tetradon*, 223; *tigrina*, 226; *tigris*, 224, 225
- vertebræ, 122
- Feronia mühlfeldii*, extra legs, 485
- Fins, division of, in Gold-fish, 451
- Fishes, undifferentiated teeth in certain, 32; bulldog-headed, 57
division of caudal fins, 451; scales, 274; flat-fishes, 466
- Fistulæ, cervical, 174; morphology of, 176; aural, 177
in Man, 175; in Pig, 179; in Horse, 180; unknown in Sheep, Goats and Oxen, 180
- Flat-fishes, reversed varieties, 54, 466; "double" varieties, 466
- Fænius tarsatorius*, extra legs, 491
- Foot, double, *Artiodactyla*, 378; Frog, 540; *Macacus*, 340; Man, 337, 338
- Foraminifera, duality, 566
- Forficula auricularia*, variation of forceps, 40; of antennary joints, 413
- Fowls, silky variety of, 55
digital variation in, 390; ovary and oviduct, 465
- Frog, vertebræ, 124; extra legs, 554; double foot, 540; Secondary Symmetry, 554
- Fusus antiquus*, sinistral, 54
- Galerita africana*, extra legs, 495
- Galerites albogalerus*, 6-rayed specimen, 445
- subrotundus*, 4-rayed specimen, 441
- Galictis*, teeth, *barbara*, *vittata*, 232
vertebræ, 123
- Gallinula chloropus*, hairy variety, 55; extra digits, 392
- Gallus*, brachial plexus, 130; digits, 390; oviduct, 465
- Garganey Teal, division of digits, 392
- Garrulus*, brachial plexus and ribs, 135
- Gasterosteus*, scales, 276
- Gaviaialis*, change in number of vertebræ, 123
- Gecinus*, brachial plexus, 131
- Generative openings, repetition of, in *Astacus*, 152; absence of, in *Astacus*, 152, 154; of Earthworms, 159; of *Hirudo*, 166
- Generative organs of Earthworms, variations in, 159; of Leeches, 165
- Genital pores, variation in number in Echini, 446
- Geophilus*, variation in number of segments, 94
- Geotrupes mutator*, extra legs, 500; *typicus*, extra antennæ, 515
- Gill-slits, of Ascidians, 171; of *Myxine*, 172; of *Bdellostoma*, 173; of *Ammonoëtes*, 174; of *Notidanidæ*, 174; of *Balanoglossus* and *Amphioxus*, 174
- Glaucium luteum*, colour-variation, 47
- Gmelin's test for bile-salts, 292
- Goat, incisor, 245; horns, 286; digits, 377; cervical auricles, 180
- Gold-fish, simultaneous variation in length of tail and fins, 309; division of anal and caudal fins, 451; "Telescope," 453
- Gonepteryx rhamni*, similarity of fore and hind wings, 25
colour - variation, 45; nature of the yellow pigment, 48
extra wing, 283
- Goose, brachial plexus, 133; pygomedian, 401
- Gorilla, vertebræ, 117; spinal nerves, 189; teeth, 202
- Goura*, brachial plexus, 130
- Grus*, brachial plexus, 130
- Guinea-hen, double-hallux, 392
- Guinea-pig, inversion of layers in, 9
- Gulo*, teeth, 231
- Hæmal spines, division of, in Gold-fishes, 453
- Hair, absence of, in Mouse, Horse, Shrew, 56; silky in Mouse, 55; excessive length in mane and tail of a horse, 309

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

INDEX OF SUBJECTS.

583

- "Hairy" Moorhen, 55
Halichærus, vertebræ, 123; molars, 242, 243
Haliotis, extra row of perforations, 287; perforations occluded, 287; perforations confluent, 287
Halla, imperfect segmentation in, 156
Hallux, duplicitly in Man, 349; Fowl, 390; variations in Kittiwake (*Rissa*), 396; *Erinaceus*, 397; Herpestidae, 397, normally absent in certain birds, 396
Hammaticherus heros, double (?) antenna, 551
 Hand, digital variations in, 324; double, 325, 331
 progressive series of Conditions, 324
Hapalidæ, teeth, 203
Harpalus rubripes, extra legs, 493; *calceatus*, double (?) antenna, 550
Hawthorn, variation of, 569
Hectocotylus, supernumerary, in *Ele-done*, 473
Helictis orientalis, teeth, 233, 234
Helix kermovani, extra eye, 280
 hispida, union of tentacles, 461
Heloderma, vertebræ, 123
Helops caruleus, extra antennæ, 523
 sulcipennis, extra palpi, 524
Hemiaster; cases in which one ambulacrum wanting, 445; two ambulacra reduced, 443; duplicity of ambulacra, 446
Hepialus humuli, males like females in Shetland, 254
Heptanchus, seven gills, 174
 Heredity, objection to use of term, 75; in digital variation, 398
 Hermaphroditism, 67; in bees, 68
Hermodice carunculata, abnormal segmentation, 158
 HERPESTIDÆ, hallux, 397
 teeth, 227–231
 Herpestes galera, 229; *gracilis*, 227, 228, 229; *griseus*, 229; *ichneumon*, 229, 230, 231; *microcephalus*, 229; *nipalensis*, 227; *nyula*, 228; *persicus*, 227; *pulverulentus*, 228, 229; *smithii*, 228, 229
 Herring, supposed hybrid with Pilchard, 275
Heterocephalus, a naked Rodent, 56
 Heterogeneity, universal presence of in living things, 18
 symmetrically distributed around centres or axes, 19
Heterorhina nigritarsis, division of pronotum, 455
Hexanchus, six gills, 174
Hipparchia tithonus, eye-spots, 293, 294
Hippocampus compared with *Phyllopteryx*, 309
Hippoglossus pinguis, 471
Hippolyte fabricii, variation in epipodites of legs, 151
Hirudinea, variation in generative organs, 165
 in colours, 304
Hirudo medicinalis, variation in number of testes, 165, 166
 officinalis, supernumerary penis, 166
Hister cadaverinus, extra legs, 512
Holopus rangi, 4-rayed specimen, 436
Holothurioidæ, variation in number of radii, 433; variations in numbers of organs, 435; double monsters, 566
Homarus, repetition of parts in cheliped, 530; in chela, 531–538; colour variation, 44; hermaphrodite, 155
 "Homodynamy," 133
 Homœosis, use of the term, 85
 between vertebræ, 106–127; backward and forward, use of terms, 111; forward in vertebræ, 112; backward in vertebræ, 111; in spinal nerves, 144; of appendages in Arthropoda, 146; in segments of Annelids with respect to genital organs, 162, 163, 167, &c.; in teeth, 272; in bilateral asymmetry, 465; in parts of flowers, 111
 Homology between members of Series of Repetitions, 30
 individual, not attributed if series is undifferentiated, 32; attempt to trace in mammæ, 191; discussed in the case of teeth, 269; in the case of digits, 351, 391, 371, 377; in the case of joints of tarsus of *Blatta*, 418; in the case of radii of Holothurioidæ, 433
 Horns, Sheep, 285; Goat, 286; Roebuck, 286, 460; Chamois, 286; of Roe-buck united in middle line, 460
 Horse, similarity of fore and hind legs, 25, 26
 naked variety, 56; teeth, 244, 245
 cervical fistula, 180
 simultaneous variation of mane and tail, 309
 extra digits, 360; by development of digit II, 361–367
 by development of digit IV, 367
 by development of digits II and IV, 368
 by division of digit III, 369
 by intermediate process, 371

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

584

INDEX OF SUBJECTS.

- Hyas*, double chela, 540; double index, 541
- Hybrids, supposed, between Herring and Pilchard, 274; supposed, between Turbot and Brill, 468; supposed, in genus *Terias*, 52, 53
- Hydrobius fuscipes*, pronotum having three lobes, 454
- Hylobates*, vertebræ, 118; teeth, 204; *leuciscus*, extra digit, 346
- Hylotrupes bajulus*, extra legs, 494
- Hypsiprymnus*, teeth, 258
- Iceland, 4-horned sheep, 285
- Ichneumon luctatorius*, extra legs, 511
- Ichneumonidæ, extra legs, 491, 511
- Icticyon venaticus*, teeth, 220
- Ictonyx*, teeth, 233
- Images, relation of, the basis of Symmetry, 19
- between upper and lower jaws, 196, 267; between right and left sides, 88; in the case of the manus and pes, 404
- division and union of parts related as, 449
- principles of, followed in the structure and position of parts in Minor Symmetry, 479
- Inca Dogs, a bulldog found amongst, 57; variation of premolars and molars, 216, 222
- Incisors, supernumerary, *Gorilla*, 203; *Atelis*, 207; Canidæ, 210; Felidæ, 222; Herpestidae, 227; Pecora, 245; *Dicotyles*, 245; Horse, 244
- division of, Canidæ, 210; *Elephas*, 244
- absence of, Canidæ, 211; Felidæ, 222; Herpestidae, 227; Phocidae, 235; Horse, 244
- Index of crabs and lobsters, peculiarity in repetition of, 557
- Individuality, attributed to members of Meristic Series, 31: such individuality not respected in Variation, 32; cases illustrating the absence of supposed individuality in Members of Meristic Series, 104, 115, 124, 191, 269, 407, 433; an unfortunate term, 556
- Jacamaralcyon tridactyla*, distinguished by absence of hallux, 396
- Jackal, vertebræ, 122; teeth, 217
- Japanese pug, probable independent origin of, 57
- Jaws, relation of upper to lower, 196
- Julodis equinoctialis*, extra legs, 503; *cloeui*, double (?) antenna, 551
- Julus terrestris*, mode of increase in number of segments, 93
- Kallima inachys*, colour-variation, 53
- Karyokinesis, symmetry in, 20; variations in, 430; bilaterally symmetrical variation of, in the segmentation of an egg, 464
- Kidney, supernumerary, 277; horseshoe, 278, 459
- Kittiwake, variations in hallux, 396
- Laciniation, simultaneous, of petals, 310
- Lady-birds, colour-variation, 49
- Lagorchestes*, teeth, 258
- Lagothrix*, teeth, 208
- Lamarck's solution of problem of Species, 4
- Lamellibranchs, sinistral, 54
- Lamia textor*, double (?) antenna, 551
- Larus leucopterus*, digits, 393
- Larvæ of Lepidoptera, variations in colours of, 304
- Leaf-butterfly, colour-variation, 53
- Leeches, variation in generative organs of, 165; in colours, 304
- Legs, extra, in Secondary Symmetry, general account, 475; cases in Insects, 483; in Position V, 488; in Position VAA, 485; in Position A, 487; in Position DA, 491; in Position D, 494; in Position DP, 496; Position P, 498; Position VP, 500. Unconformable cases, 503; miscellaneous cases, 511; in Crustacea, 526; in vertebrates, 554
- supposed double in Insects, 544
- Leopard, two cases of dental variation in a Chinese, 225, 226
- Lepidoptera, colour-variation of larvæ, 304; ocellar markings, 288; nature of yellow pigments, 73
- Leptura testacea*, double (?) leg, 545
- Leuciscus dorbua*, bulldog-headed variety, 58
- Lichenanthe vulpina*, extra antennæ, 517
- Ligula*, absence of segmentation in, 168
- Limax*, union of tentacles, 460
- Limenitis populi*, extra wing, 283
- Limulus*, division of caudal spine, 450, 456
- Linaria*, many symmetrical variations of, 76
- Linckia multiflora*, fission, 433
- Linear Series, Meristic Variation in, 63; simultaneity in colour-variations of, 303
- Lissotriton*, supposed double limb, 539
- Lithobius*, number of segments, 93
- Lithodes arctica*, extra legs, 527
- Littorina rufa*, colour-variation, 49
- Littorina*, sp., extra eye, 280
- Lixus angustatus*, division of pronotum, 456
- Lizards, digital variation in, 395, 396
- Lobster, colour-variation, 44; hermaphrodite, 155; variations in chela, 530—538

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

INDEX OF SUBJECTS.

585

- L**ocal Races, evidence as to, not a direct contribution to Study of Variation, 17
Locusts, variation in colour of tibiæ, 44
Loligo, variations in segmentation of egg, 463
Lucanus *cervus*, extra antennary branch, 2 cases, 549; extra branch on mandible, 2 cases, 552; *capreolus*, ditto, 552
Luidia *ciliaris*, variation of pedicellariæ, 429
Lumbo-sacral plexus, 138
Lumbriconereis, imperfect segmentation, 156
Lumbriculus, double tail, 565
Lumbricus, undifferentiated segments in, 32; imperfect segmentation, 156; spiral segmentation, 157; repetition of ovaries, 160; asymmetrical arrangement of organs, 160, 161; variation of genital openings, 162; duality, 565
agricola, 162; *herculeus*, 160; *purpureus*, 160; *terrestris*, 156, 157; *turgidus*, 160
Lupa *dicantha*, extra index, 542
Lurcher, teeth, 221
Lutra, teeth, 228, 233, 234, 235
 constancy of p^1 in *L. vulgaris*, 228
Lyceña *icarus*, extra wing, 284
Lycalopex group of Foxes, frequency of extra molars in, 217
Lychnis, repetition of fimbriation in petals, 26
Lycus, double (?) antenna, 551
Lynx, teeth, 224
Lysimachia, Meristic variation in flower of, 61
Lyssiphlebus, variation in number of antennary joints, 412
Macacus *cynomologus*, syndactyly, 356
inuus, spinal nerves, 137, 139
 teeth, 204
radiatus, doubtful extra molars, 204
rhesus, extra molar, 204
Macroglossa, colours of larvæ, 304, 305
Macrognathus *nepalensis*, double (?) antenna, 551
Macropodidæ, teeth, 259
Macrorhinus *leoninus*, teeth, 243
Madreporites, repetition of, 440
Maia *squinado*, extra index, 542
Major Symmetry, 21, 87
Malachius *marginellus*, extra antennæ, 522
Males, high and low, 39
Mallodon, double (?) leg, 547
Mammæ, numerical Variation in, 181; along mammary lines, 181; in other positions, 186; in axilla, 185; below and internal to normal mammæ, 186; above and external, 185
Mammæ, variation in Cow, 161; Dog, 189; Pig, 190; Man, 181; Apes, 188
 comment on facts, 191
 development of, 194
Mammary extensions to axilla, 185
 lines, 181
 tumours, 185, 187
Man, cervical fistulæ, 174; cervical auri-oles, 177
 digits, increase in number, 324; reduction in number, 355; polydactyly in general, 344; double-hand, 331; symmetry of manus and pes, 403
 kidneys, union of, 459; renal arteries, 277; ureters, 278
 mammæ, 181
 nerves, spinal, 135; brachial plexus, 135; notable variation in, 137, 113; lumbo-sacral plexus compared with that of Chimpanzee, etc., 138
 teeth, 198
 transposition of viscera, 559
 uterus, double, Darwin's comment on, 77
Mvertebræ, Meristic and Homoeotic variation in, 103, 106–116, 458
Mandibles, supposed duality of, in *Lucanus*, 552
Manus, variations in, compared with those of pes, 405; as a system of Minor Symmetry, 403
Marsupialia, teeth, 246–258
Mastiff, teeth, 210, 221; hallux permitted in, 401
Maternal impressions and extra legs in a beetle, 512
Maxillipede developed as a chela, 149, 150
Median nerve, variations in composition of, 136
Medicago, repetition of brown spot in leaflets, 26
Meduse, Meristic Variation of, 423; duality in, 566
Melanoplus *packardii*, colour-variation, 44
Melæs, teeth, 232, 233, 235
Mellivora, teeth, 233, 235
Meloe *coriacaeus*, double (?) leg, 547; *proscarabæus*, extra legs, 488; *violaceus*, extra antennæ, 523
Melolontha *vulgaris*, division of pronotum (5 cases), 454
 division of pygidium, 456
 extra legs, 484, 512
 extra antennæ, 515, 520, 533, 550

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

586

INDEX OF SUBJECTS.

- Melolontha vulgaris*, double (?) leg, 545
hippocastani, extra antennæ, 516, 557
- Mephitis*, teeth, 232
- Merism, 20; importance of, to Study of Variation, 23
 indirect bearing of, on the magnitude of Variations, 25
- Meristic Repetition, 20; kinship of parts so repeated, 26; similar Variation of parts in, 27, 310, 464; compared with asexual reproduction, 34
- Meristic Variation, distinguished from Substantive Variation, 22; compared with Homeotic Variation, 84
- Metacarpals, development of lateral, in Artiodactyla in correlation with syndactylism of metacarpals III and IV, 383
- Metameric Segmentation, not distinguishable from other forms of Repetition, 28; errors derived from such distinction, 30
- Metasternal plates, division of, 456
- Metazoa, comparison with Protozoa, 35
- Metrius contractus*, extra legs, 503
- Middle Line, division by images in, 404, 450; union of images in, 383, 458
- Minnow, bulldog-headed specimen, 58
- Minor Symmetry, 21, 88; Meristic Variation in, 311, 410; in manus and pes, 403
- Molars, supernumerary, *Simia*, 200; *Troglodytes*, 202; *Gorilla*, 203; *Cynocephalus*, 204; *Macacus*, 204; *Cebus*, 205; *Ateles*, 205; *Myctees*, 207; *Canide*, 217, 220; *Felidæ*, 226; Herpestidae, 230; Mustelidae, 234; Phocidae, 242; Ungulata, 245, 246; *Dasyurus*, 256; *Bettongia*, 258
 special frequency in Anthropoid Apes, 200; in *Lycalopex* group of Foxes, 217
 absent, *Simia*, 200; *Ateles*, 207; *Pithecia*, 208; *Canide*, 219, 221; *Felidæ*, 226; Herpestidae, 231; Mustelidae, 235; Phocidae, 243; *Bettongia*, 258
 division of, *Canis cancrivorus*, 219; *Crossarchus*, 230
 Variation in form, *Crossarchus*, 231; *Dasyurus*, 256
 in *Icticyon* and *Otocyon*, 220
- Monkeys, Old World, teeth, 204; New World, 205
- Monodon*, development of right tusk, 465
- Monomorphism, 33
- Monotoma quadricollis*, double (?) antenna, 550
- Moorhen, hairy variety, 55; extra digits, 392
- Morpho*, eye-spots, 296—299
achilles, 297; *menelaus*, 298; *montezuma*, 297; *psyche*, 299; *sulkowskii*, 299
- Mouse, colour-variation, 44; with silky hair, 55; black variety, 55; naked, 56
- Mugil capito*, bulldog-headed, 58
- Mule, rarity of digital variation in, 360; case of, 370
- Mullet, bulldog-headed variety, 58
- Multipolar cells, 430
- Mustelidæ, teeth, 231, 235; premolars in *M. foina*, *martes*, *melanopus*, *zibellina*, 231
- Mycetes*, teeth, 207, 208
- Mycomelic acid, relation to yellow colouring matters, 73
- Mydaus*, teeth, 232
- Myriapoda, variation in number of segments, 91, 93
- Myrmecobius*, incisors, 247, 248
- Myxine*, variations in number of gill-sacs, 172
- Nenia typica*, extra wing, 284
- Narcissus*, Substantive and Meristic Variation in, 23; colour-variation, 46
- Narwhal, development of tusks, 465
- Nasalis*, teeth, 204
- Natural Selection, chief objection to theory of, 5; misrepresentations of the theory, 80; difficulty in connexion with regeneration, 420
- Navosoma*, extra antennæ, 521
- Nebria*, double (?) antenna, 550; *gyllenhalli*, double (?) maxillary palp, 551
- Nectarine, discontinuous variation in, 59
- Nereis*, double tail, 564
- Nerves, spinal, Birds, 129—135; Man, 135; Apes, 138; Cat, 138; Dog, 140; Bradypteridae, 141; *Pipa*, 141
 attempt to homologize, 32
 variations, 129—145
 correlation with vertebrae, 145
 relation to limbs, 143
- Neural canal, division of, 451
- Neuration of wings varying with eye-spots, 293
- Nigidius*, extra branch on antenna, 549
- Nipples, supernumerary, on normal breast, 184; on normal areola bifid, 184; on mammary lines, 186; in Pig, 190; in Dog, 189
- Notidanidæ, number of gills, 174
- Nuclei, multipolar division, 430, 464; precocious division, 464
- Nyctereutes procyonoides*, teeth, 215
- Nyctipithecus*, teeth, 208

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

INDEX OF SUBJECTS.

587

- Ocellar markings, 288, 449
Lepidoptera, 288; *Raiidae*, 302; Birds, 449
- Odontolabis stevensii*, extra antennæ, 518, 557
- Oligochaeta*, axial duality, 563; generative organs, 159; segmentation, 156
- Ommatophoca rossii*, premolars, 237
- Onitis bison*, division of pronotum, 455
- Operculum, double in *Buccinum*, 457
- Ophiacantha anomala*, normally 6 arms, not known to divide, 433
- Ophioactis*, fission, 433
- Ophibolus*, double monster, 561
- Ophidia, vertebræ, 103, 123
- Ophidiaster cribrarius*, fission, 433
- Ophiocoma pumila*, young with 6 arms, adults with 5 arms, 433
- Ophiothela isidicola*, fission, 433
- Ophiozoidea, variation in number of arms, 447; fission, 433
- Ophistocomus*, brachial plexus, 130
- Orang, vertebræ, 118; spinal nerves, 139; teeth, 200; extra digit, 349; extra mamma, 188
- Organic Stability, 36
- Orthosia levis*, extra wing, 284
- Oryctes nasicornis*, division of pronotum, 455; extra legs, 512
- Osmoderma eremita*, double (?) leg, 547
- Otaria cinerea*, molars, 240
jubata, premolars, 240, 243
ursina, premolars, 239, 241
- Otocyon*, teeth, 220, 221
- Ouakaria*, teeth, 208
- Ovaries, variations in number and position in Earthworms, 160, 162 not always correlated with variations in oviducts, 167
- Ovary, right, developing in Fowl, 466
- Oviduct, right, case of, in Fowl, 466
- Oviducts of *Astacus*, variation in number, 152; in Earthworms, 167
- Ox, incisors, 245; molar, 246; polydactyly, 374–381; syndactyly, 384–387; syndactyly together with development of digits II or V, 385; with duality of II and V, 386; cervical auricles and fistulæ unknown, 180
- Pachydrilus sphagnetorum*, dimorphic in respect of position of generative openings, 165; 168
- Painted Lady butterfly, colour-variation, 49
- Palaeornis torquatus*, colour-variation, 43
- Palamneus borneensis*, division of poison-spine, 457
- Palinurus penicillatus*, eye developed as antenna, 150
vulgaris, extra legs, 527; extra antennæ, 538
- Palloptera ustulata*, abnormal growth from thorax, 285
- Palpi, paired extra, in Insects, 524 supposed double, 551
- Pangenesis, 75
“Panmixia,” 573
- Papaver nudicaule*, colour-variation, 46; pigment of, 47, 72
- Parakeet, colour-variation, 43
- Pararge megera*, eye-spots, 289, 300
- “Parhomology,” 133
- Pariah dog, teeth, 221
- Parnassius*, ocelli, 292
- Parra*, feathers, 55
- Pasimachus punctulatus*, double (?) leg, 547
- Patella*, extra tentacle and eye, 279
- Pattern, universal presence of, in organisms, 19–21; difficulties arising from, 21
- Peach, discontinuous variation in, 59
- Peacock, ocelli, 449
- Peacock butterfly, repetition of eye-spots in, 26; variation of, 299
- Pecora, polydactyly, 373
- Pecten*, double eyes, 280
- Pedicellariæ, Meristic Variation of, 429
- Pelamis bicolor*, imperfect division of vertebræ, 105; axial duality, 561
- Pelecanus*, brachial plexus, 130
- Pelobates fuscus*, extra spiracle, 465
- Penis, supernumerary, in *Hirudo*, 166; in *Aulastoma*, 167
- Pentacrinus mülleri*, increase in number of radial joints, 4-rayed specimens, *dubius*, *dumortieri*, *jurensis*, *sub-sulcatus*, 436 6-rayed specimens, *jurensis*, 437
- Penthina salicella*, extra wing, 285
- Peramelidæ, digits of pes, 313
- Perichæta, variation in number of spermathecae, 165; *forbesi*, *hilgendorfi*, 165
- Pericrocotus flammeus*, colour-variation, 46
- Perionyx*, generative organs, *excavatus*, 163, 167, 168
grinewaldi, 164
- Peripatus, variation in number of segments, 84, 91, 94
- Petaurus*, premolars, 255
- PHALANGERIDÆ, incisors, 248; premolars, 248–255
- Phalanger maculatus*, incisors, 248; premolars, 253; females spotted in *Waiguu*, 254
- orientalis*, incisors, 248, 250; premolars, 250
- ornatus*, first premolar two-rooted as variation, 254
- ursinus*, first premolar normally two-rooted, 254

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

588

INDEX OF SUBJECTS.

- P**halanges, reduction in number, 355
Phascolagale dorsalis, teeth, 257
Pheasant, digits, 393
Philonthus succicola, double (?) leg, 548
ventralis, extra legs, 507
Phoca barbata, incisors, 235, 236
cristata, premolars, 238
grænlandica, premolars, 238, 240,
242; molars, 243
vitulina, premolars, 238, 241,
242; molars, 242
Phœnicopterus, brachial plexus, 130
Phoxinus lœvis, bulldog-headed, 58
Phratora vitellinae, colour-variation, 43
Phreoryctes, generative organs, 162
Phyllopertha horticola, extra antennæ,
514
Phyllophorus, tentacles not in multiples
of five, 435
Phyllopteryx, compared with *Hippocampus*, 309
Physa acuta, tentacle bifid, 280
Picus viridis, colour-variation, 43; *medius*, brachial plexus, 131
Pieridæ, colours of, 73; eye-spots in,
292
Pig, digits, 381; syndactylysm, 387;
syndactylysm with division of digit V,
389; cervical auricles, 179; cervical
fistulæ, 180
Pigeon, cervical vertebræ, 33; brachial
plexus, 134
Pigments, definite variations proper to
certain, 48; nature of yellow, in *Pieridæ*, 48.
Pike, bulldog-headed, 58
Pilchard, variation in scales, 274; sup-
posed hybrid with *Herring*, 275
Pilumnus, not altered by Entomists, 95
Pimelia interstitialis, extra legs, 498
scabrosa, extra antennæ, 523
Pinnipedia, Teeth, 235—243
Pipa, spinal nerves, 141
Pithecia, absent molar, 208
satanas, syndactylysm in, 356
Pityophis, axial duplicity, 561
Plaice, symmetrical spotting of blind
side, 167
Plant, compared to the body of Man, 29
Platycerus caraboides, extra legs, 507
Platyonychus, not altered by Entomists,
95
Platysomachthys, 471
Pleuronectes, pigmentation of blind side,
467, 471
Plume moths, repetition of pattern in
wings, 26
Pluteus, double, 35
Podargus, brachial plexus, 131
Pæciologale, 232
Pointer, teeth, 221
Polian vesicles, variation in number of,
434, 435
Pollex, duplicity in, *Man*, 349; Dogs,
401
Polyarthron, variation in number of an-
tennary joints, 412
Polychæta, axial duplicity in, 564
Polydactylysm, *Cat*, 312; *Man*, 324;
Macacus, 340; *Hylobates*, 346; *Simia*,
349; irregular cases in *Man*, 353; *Horse*,
360—371; *Artiodactyla*, 373
Polydesmus, mode of increase in number
of segments, 93
Polyodontophis, vertebræ, 123
Polyphylla decemlineata, extra antennæ,
518
Polyplectron, eye-spots, 449, 450
Polyzoa, division of embryos, 556
Poppy, Iceland, colour-variation, 46;
Horned, colour-variation, 47
Porania, 4-rayed specimen, 440; irregu-
lar division of an arm, 440
Portunion, change in *Carcinus* produced
by, 95
Portunus puber, extra parts on chela,
535; not altered by Entomists, 95
Potorous, teeth, 358
Premolars, nomenclature, 199
supernumerary, *Brachyteles*,
205; *Ateles*, 206; *Myctetes*,
208; *Canidæ*, 212—214;
Felidæ, 223; *Herpestidae*,
229; *Mustelidæ*, 231—234;
Phocidae, 237—242; *Cer-
vus*, 246; *Phalangeridæ*,
248; *Phascolagale*, 257
absence of, *Canidæ*, 214—
216; *Felidæ*, 224; *Herpes-
tidæ*, 229; *Mustelidæ*, 231
—234; *Phocidae*, 237—242
apparent division, *Brachyteles*,
205; *Canidæ*, 213;
Dasyurus, 255; *Phocidae*,
237
displacement and other va-
riations, *Simia*, 201
PRIONUS, supposed development of elytra
as legs, *coriarius*, 148
variation in number of anten-
nary joints, *imbricornis*, 411,
fissicornis, 412
extra legs, *coriarius*, 488, 512,
californicus, 544, 557, *cori-
aceus*, 548
double (?) antenna, 551
double (?) legs, *californicus*, 544
Proceræa, double tail, 564
Protozoa, supposed relation to *Metazoa*,
35; duplicity, 566
Pseudochirus, premolars, 250, 255; in-
cisors, 248
Pterostichus, extra legs, *lucublandus*, 512;
mühlfeldii, 485; *prevostii*, 512; dou-
ble (?) antenna, *planipennis*, 550
Ptinus latro, extra legs, 512; extra an-
tennæ, 522

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

INDEX OF SUBJECTS.

589

- Puffinus*, brachial plexus, 130
Pug, breeds of, 57; teeth, 221
Purpura lapillus, colour-variation, 48
Putorius, teeth, 231, 234
Pygera anastomosis, extra wing, 284
Pygidium, division of, in *Melolontha*, 456
Pygamelian geese, 401
Pyrameis cardui, aberrations of, 49, 52; var. *kershawi*, 49, 52; var. *elymi*, 50, 51
Pyrodes speciosus, extra legs, 496
Python, imperfect division of vertebræ, 103, 105
- Radial joints of Crinoids, 421
Radial Series, Meristic Variation in, 60; evidence, 422; in Echinodermata, 432
Radii, variations in number, Holothurioidæ, 433; Crinoideæ, 435; Asteroideæ, 439; Echinoideæ, 441; Ophiuroideæ, 433, 447
Radius, absence of, 360
Radulæ of *Buccinum*, 262
Raiidæ, eye-spots, 302; extra fin, 540; division of fin into lobes, 540; separation of fin from head, 540
Rana, vertebræ, 124, 126; double foot, 540; spinal nerves, 142; extra limbs, 554
Ranzania bertolonii, extra legs, 510
Raspberry, yellow variety, 47
Red, variations of, 44—48; as variation from blue, 44
Renal arteries, 277
Repetition of Parts, association of these phenomena, 21
Repetition, Linear, Bilateral or Radial, distinctions between, 88 Units of, 556
Reptilia, vertebræ, 103, 123
Reversion, hypothesis made in order to escape recognition of Discontinuity in Variation, 76
Rhagium mordax, double (?) leg, 548
Rhea, brachial plexus, 130
Rhinoptera, teeth, 259—261, *javanica*, 261, *jussieui*, 259
Rhizocrinus, 6-rayed specimen, 437
Rhizotrogus, extra legs, *astivalis*, 510; *castaneus*, 512
extra antennæ, *equinoc-tialis*, 517
division of metasternal plates, 456
Rhombus, pigmentation of blind side, 467—471; *levis*, 467, 468, 470; *maximus*, 467, 470 variations in scales, 468
Rhynchites germanicus, double (?) antenna, 550
Rhyttirhinus, supposed case of extra eye, 281
Ribs, division of, in Man, 105 cervical, in Man, 108, 112, 115; in Dog, 122; Bradypodidæ, 119; on 6th vertebra in Man, 108
- Ribs, variations in dorso-lumbar region, Man, 109—116; Anthropoid Apes, 116—118; Bradypodidæ, 121; *Felis*, 122; *Canis*, 122; *Galictis*, 123; *Halichærus*, 123; eleven in Siamese Twins, 560
Rissa, variations of hallux in the genus, 396, 397
Roebuck, horns, 286; polydactylism, 374, 379; union of horns, 460
Rubus idæus, colour-variation, 47
Rupicapra tragus, horns, 286
Rutela fasciata, extra legs, 512
- Sacculina*, effect of, on segmentation of *Carcinus* and other Crabs, 95
St Bernard dog, duplicity of hallux in, 401
Salinity, doubtful relation of variations of Crustacea to changes in, 100
Salmo fario, *salar*, *trutta*, 58
Salmon, bulldog-headed variety, 58; axial duplicity, 563
Salmacina, double tail, 564
Salt lakes, Crustacea of, 96, 100
Samia cecropia, extra wing, 283
Sand-canals, repetition of, in *Asterias*, 440
Saperda carcharias, extra antenna arising from head, 551
Sarcophilus, teeth, 255
Sarsia, Meristic Variation in, 424; with six segments, 424; with five segments, 425
Saturnia carpini, repetition of eye-spots in wings, 26; extra wing, 282; variation of eye-spots, 289, 301, 302; colours of larvæ, 306
Satyrus hyperanthus, eye-spots, 294
Sawfly, extra legs, 502, 546
Scales of Pilchard, 274; of *Gasterosteus*, 276; of Snakes, 276
Scarites pyracmon, extra legs, 500
Scheme, shewing the relations of parts in Secondary Symmetry, 481
Scolopendra, number of segments, 94
Scorpion, double poison-spine, 457; double tail, 565
Scriptia fusca, extra antennæ, 523
Seals, variations in dentition, 235
Segmentation, metameric, not in kind distinct from other forms of Repetition, 28; two ways by which a full segmentation may have been achieved in phylogeny, 86
of Arthropoda, variation in, 91; imperfect in Annelids, 156; spiral in Annelids, 157; variation of in Cestoda, 168, 170 of mammæ, 191 of ovum, variations in, 463

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

590

INDEX OF SUBJECTS.

- Selachians, teeth in, 259
Semnopithecus, teeth, 204
Sepidium tuberculatum, double (?) antenna, 551
 Sex, analogy with Discontinuous Variation, 66
 Sexual characters, statistics as to, in Beetles, 38; Earwigs, 40
 of *Hepialus* in Shetland, 254
 of *Phalanger* in Waigu, 254
 Sheep, cervical auricles, 180; incisors, 245; change in form of canines, 245; molar, 246; extra horns, 285; polydactylism, 373, 380
 Sheep-dog, teeth, 221
 Shetland, variety of *Hepialus* in, 254
 Shrew, naked variety, 56
 Siamese Twins, 560
 Siberia, Crustacea of salt lakes, 97, 100
Silis ruficollis, extra legs, 498
 Silky fowls, 56
Silpha nigrita, extra legs, 501; *granulata*, double (?) leg, 548
Silurus, extra fin, 540
Simia, vertebrae, 118; teeth, 200; extra digit, 349; extra mamma, 188
 Simultaneity of Variation, possibilities of, 25, 26, 308; in fore and hind wings of Lepidoptera, 293; in counterparts, 569; in colours of segments of Lepidopterous larvæ, 303; in Chiton idæ, 307; in limbs, 402; in homologous twins, 559; in radial segments, 423; not clearly distinguishable from Symmetry, 569
 Sinistral varieties, 54
Situs transversus, 465, 560
 Sledge-dog, absence of first premolar, 215; division of premolar, 214
Smerinthus, colours of larvæ, *ocellatus*, *populi*, *tiliae*, 306, 307
 Snakes, vertebrae, 103, 123; axial duality, 561
Solea, pigmentation of blind side, 471
Solenophorus strepens, double (?) antenna, 551
Sorex, naked variety, 56
 Spaniel, teeth, 221
 Species, the problem of, 2. Methods of attacking, 6
 Discontinuity of, a fact, 2
 Specific Differences, indefinite, 2
 Spermathecae of Earthworms, variation in number, &c. of, 160, 165
Sphaerocrinus, imperfect variation to 6-rayed state, 437
 Sphingidæ, repetition of markings in larvæ of, 26; variation in, 304
Sphinx ligustri, division of proboscis, 456
 Spinal nerves, 129; Birds, 130; Man, 135; Primates, 138; Bradypodidæ, 141; *Pipa*, 141; *Rana*, 142
 dimorphism in respect of, 138; distribution to limbs, 143; Homœosis, 144; recapitulation, 144
 Spinal nerves, principles of distribution, 143
 Spiracle, extra in tadpole of *Pelobates*, 465
 Stability, Organic, 36
 Starfishes, theory of origin of repetition in, 29; variations in number of rays, 439; multiplication by fission, 433
Stentor, duality, 566
Stichopus, arrangement of tube-feet changes with age, 435
 Stickleback, variation in number of bony plates, 276
Stomobrachium octocostatum, variety having tentacles in double series, 425
Strangalia, double (?) antenna, *atra*, 551, *calcarata*, 551
Strategus antaeus, extra legs, 512
Struthio, brachial plexus, 130
Styela, variations in branchial sac, 172
Submarginula, extra eye, 279
 Substantive Variation, distinguished from Meristic, 23; correlated with Meristic in vertebrae, 125
 in size, 38, 40; in colour, 43—48; in colour-patterns, 48—54; miscellaneous, 54—60
 Swan, cervical vertebrae, 33; colour-variation of young, 44; brachial plexus, 130
 Symmelian "monster," 459
 Symmetry, the conception of, 19, 569
 a relation between optical images, 19
 almost universal presence of in living organisms, 21
 of mammae, 191
 in dental Variation, 267
 in digital Variation, Man, 324, 402; Cat, 314; in manus and pes, 403
 in nuclear division, 430;
 in variations in segmentation of ovum, 463
 in variations of homologous twins, 559, 560
 in double monstrosity, 559
 Bilateral, characters of, 88; as appearing in variations of flat-fishes, 467
 Major and Minor, 21, 86
 Primary and Secondary, 90
 Radial, characters of, 89

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

INDEX OF SUBJECTS.

591

- Symmetry, Secondary, preliminary account, 475; principles, 479
- Scheme of relations of parts in, 481; parts repeated in, *geometrically* peripheral to points of origin, 557; relation to Primary, 556, 557
- in Insects, 475; Crustacea, 525; Vertebrates, 553; Batrachia, 554; *Triton*, 555
- Syndactylism, Man, 355, 356; *Pithecia*, 356; *Macacus*, 356; Ox, 384—387; Pig, 387—390
- Tadpole, extra spiracle in, 465
- Tænia cænurus*, transposition of generative organs, 170; case of six suckers and segments prismatic, 565
- elliptica*, asymmetrical arrangement of genital pores, 170
- saginata*, “intercalated” segments, 169; repetition of generative organs in proglottides, 169; two genital pores at the same level, 170; consecutive genital pores on same side, 170; bifurcation of chain, 566
- solium*, changes in position and alternate arrangement of genital pores, 170
- tenuicollis*, bifurcation of chain, 566
- Tail-fin, division of, in Gold-fish, 451
- Tail-spine, division of, *Limulus*, 456; Scorpion, 457
- Tapeworms, variations, 168—170; duality in, 565
- Tarsus, in some beetles with only four joints appearing, 25; variation in number of joints, *Blatta*, 63, 415; various numbers of joints in families of Orthoptera, 415
- Taurhina nireus*, extra legs, 509
- Taxidea*, teeth, 233
- Taxus baccata*, colour-variation, 47
- Teal, Garganey, division of digits, 392
- Teeth, in undifferentiated series not credited with individuality, 32
- numerical Variation, 195; division of, 268; duplicate, 268; statistics of Variation, 200, 209, 222, 235
- relation of upper to lower, 196
- of Primates, 199—208; Canidæ, 209—222; Felidæ, 223—226; Viverridæ, 227—231; Mustelidæ, 231—235; Pinnipedia, 235—243; Ungulata, 243—246; Marsupialia, 246—258;
- Selachians, 259—262; *Buccinum*, 262
- Teeth, terminal, least size of, 270; presence and absence of, 269; Homœotic Variation in, 272
- Recapitulation, 265
- Telephorus*, colour-variation, *lividus*, 43
- division of pronotum, *nigricans*, 455
- double (?) antenna, *lividus*, *rotundicollis*, 551
- double (?) leg, *excavatus*, *fuscus*, 548
- extra legs, *rusticus*, 502
- “Telescope” Gold-fish, 453
- Tellina*, sinistral variety, 54
- Tenebrio granarius*, double (?) leg, 548
- Tentacles of Molluscs united, *Helix hispida*, 461; *Limax agrestis*, 460
- repeated, *Patella vulgata*, 279
- bifid, *Physa acuta*, 280
- of Holothurians, 435
- Tenthredo solitaria*, extra legs, 502
- ignobilis*, extra leg, 546
- Terias*, colour-variation, 52, 53; *anemone*, *hecate*, *mandarina*, *mariesii*, 52; *betheseba*, *constantia*, *jaegeri*, 53
- Terminal members of Series, variation of, 79, 269, 271, 272, 407
- teeth, 269, 272; digits, 407
- Terrier, absence of premolars, 215
- Testes, variation in number in *Hirudo*, 165, 166
- Tetraceros*, horns not as in 4-horned Sheep, 285
- Tetraclinus*, normally 4-rayed, 5-rayed and 3-rayed varieties, 437
- Tetrops praestata*, double (?) leg, 545
- Thoracopagous twins, transposition in, 560
- Thumb, variation in number of phalanges, 324
- double, 349
- Thylacinus*, teeth, 255
- Thylacites pilosus*, double (?) antenna, 550
- Thyonidium*, variation in number of organs, 435
- Tiarops polydiademata*, specific character of, 426
- Timarcha tenebricosa*, extra antennæ, 522
- Tomato, colour-variation, 47
- Tonicia*, variation in colour of scutæ, 308
- Tongue, division of, 451
- Toxotus*, extra eye, 280
- Transposition of viscera, 560
- Triasters, symmetry of, 430; found in bilaterally symmetrical areas of segmenting ovum, 464
- Trichodes syriacus*, double (?) leg, 547
- Trichosurus vulpecula*, premolars, 254

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

592

INDEX OF SUBJECTS.

- Trienophorus*, segmentation of, 168
Triopha clavigera, rhinophore trifid, 280
Triton, legs repeated, 555
Troglodytes, vertebræ, 116; teeth, 202
Tropidonotus, vertebræ, 123; scales, 276
 Trout, bulldog-headed, 58, 59; axial duality, 563
 Tulip, Meristic Variation in, 60
 Turbot, pigmentation of lower side, 467, 470
Turdus, brachial plexus, 131
 Turkey, digits, 393
 Twins, homologous, 559; Simultaneous Variation of, as a case of Bilateral Symmetry, 559
 Siamese, peculiarities of, 560; thoracopagous, 560
 in Echinoderms and in Amphioxus, 35
Typosyllis, double head, 564
- Uca una*, extra parts in chela, 530
 Ulna, a second, 331
 Ulnar nerve, variations in composition of, 136; a second, 333
 Ungulata, teeth, 243; digits, 360—390, 397
 Union, median, 458; of horns of Roe-buck, 460; of eyes of Bee, 461; of kidneys, 459; of tentacles of *Limax*, 460; of tentacles of *Helix*, 461; of posterior limbs of Vertebrates, 459; of digits in Ox, 383, 386; of digits in Pig, 387—390
 Units, of Repetition, 556
Uraeos, brachial plexus, 131
 Ureters, supernumerary, 278
 "Useless" parts, supposed variability of, 78
 Uterus, double, Darwin's comment on, 77; is a case of median division, 451
 Utility, fallacies of reasoning from, 12
 Uvula, division of, 451
- Vanessa atalanta*, colour-variation, 46
 urticæ, extra wing, 283
 io, eye-spots, 299, 300
- Variation, defined, 3
 the Study of, as a method of attacking the problem of Species, 6
 Continuous and Discontinuous, 15
 Meristic and Substantive, distinguished, 23, 24
 magnitude of integral steps affected by Merism, 25
 about a Mean form, 37
 perfection in, 60, 64
 causes of, 78
 Homœotic, 85, in vertebræ, 106; in Arthropoda, 146; in teeth, 272
 Simultaneity of, in repeated parts, 303, 402, 425, 464
- Variations, minimal, questionable utility of, 16
 Vertebræ, Meristic Variation in, 102
 imperfect division, 103, 458
 Homœotic Variation, 106
 reduction in numbers, Man, 111
 numerical variation, 102
 Man, 103, 106—116; Anthropoid Apes, 116; Bradypodidae, 118; Carnivora, 122; Reptilia, 123; Batrachia, 124; features of Variation recapitulated, 127; correlation with spinal nerves, 113, 115, 139, 145
Vesperus luridus, extra eye, 280
Veronica buxbaumii, numerous symmetrical variations in, 76; illustrating variations of Bilateral Series, 448
- Viverridæ, teeth, 227—231
- Waigiu, female *Phalanger maculatus* coloured like male in island of, 254
- Wall butterfly, variation in ocelli and neurulation, 300
- Water-pore, extra, in *Bipinnaria*, 466
- Webs, between toes of Duck, absent, 401
- Weevils, four visible joints in tarsus, 25
- Wing, supposed to replace a leg in *Zygæna*, 148
- Wings, supernumerary in Insects, 281
 fore and hind, varying simultaneously in Lepidoptera, 293
 quills of, varying with quills of tail in Pigeons, 309
- Woodpecker, Green, colour-variation, 43
- Xantho punctulatus*, duplicity of index, 542
- Xiphopagous twins, transposition of viscera in, 560
- Xylotrupes gideon*, variation of horns in, 38
- Yellow, variations of, 43—48, 73
 Yew, yellow-berried, 47
- Zalophus californianus*, molars, 243
 lobatus, premolars, 238, 242; molars, 243
- Zebra, repetition of stripes in, 26
- Zeugopterus*, white varieties, 467; variation in dorsal fin, 471
- Zonabris quadripunctata*, double (?) antenna, 551
- Zonites praevista*, extra antennæ, 522
- Zygæna filipendulae*, colour variation, 46
 supernumerary wing, 148
 minos, colours, 46; extra wing, 284

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

INDEX OF PERSONS.

- Acton, 286
 Adolphi, 124, 127, 142
 Agassiz, A., 469
 Agassiz, L., 396, 424
 Ahlfeld, 340, 354, 451, 458
 Albrecht, 105, 540
 Aldrovandi, 344
 Allen, J. A., 243
 Alston, 286
 Ammon, 348, 349
 Anderson, 399
 Andrews, 563, 564
 Annandale, 327, 345, 346, 350–352, 355–358
 Appelöf, 473
 Arloing, 363, 370
 Ascherson, 174
 Ashmead, 413
 Asmuss, 484, 500
 Asper, 167
 Assheton, 152
 Audouin, 512
 Auld, 390
 Austin, 436
 Auvard, 349
 Auzoux, 203
 Babington, 47
 Bacon, 29, 146
 Baird, 223, 232
 Balbiani, 566
 Balding, 305
 Balkwill, 566
 Ballantyne, 334
 Bancroft, 561
 Barbour, 563
 Bardeleben, 183
 Barr, P., 46
 Barrier, 384, 388
 Bartels, 187
 Barth, 187
 Bartlett, 216
 Bassi, 512, 548, 551
 Baster, 453
 Bateson, Miss A., 77, 468
 Bather, 436
 Baudi, 456, 512, 551
 Baudon, 54
 Baum, 401
 Baumüller, 374
 Baur, 103, 105, 123, 124
 Beddard, 159, 162, 163, 165
 Bedriaga, 127
 Bell, F. J., 443, 564, 565
 Bellamy, 113
 Belt, 56, 57
 Beneden, van, 531
 Benham, 152, 159, 161, 565
 Béranger, 347
 Bergendal, 555
 Bergh, 160
 Bernhardus à Berniz, 538
 Betta, dc, 43
 Bibron, 563
 Bicknell, 45
 Billardon de Sauvigny, 454
 Billott, 399
 Birkett, 178
 Birnbaum, 350
 Blackmore, 523
 Blainville, de, 118, 119, 205, 224
 Blanchard, 187
 Blanford, W. T., 398
 Blasius, 354
 Bles, 440
 Bleuse, 482, 508
 Boas, 369, 383, 385
 Boettger, 561
 Boisduval, 45
 Bolau, 349
 Bond, 301
 Bonnier, 95
 Böttcher, 560
 Boulard, 512
 Boulenger, 123, 276, 277, 395, 396, 465
 Boulian, 351
 Bourne, A. G. 125, 127
 Boyd-Campbell, 399
 Bramson, 52
 Brandt, 466
 Bredin, 368
 Breese, 565
 Brenner, 360
 Brindley, 38, 39, 63, 280, 416
 Brisout de Barnevile, 416
 Brooks, 466
 Broome, 565
 Bruce, 181, 185
 Brulerie, de la, 280
 Bruner, 44
 Brunette, 564
 Brunner von Wattenwyl, 41, 413, 416
 Buchanan, Miss F., 156, 157
 Buckler, 304, 305, 307

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

594

INDEX OF PERSONS.

- Buffon, 286, 398
 Bull, 340
 Bülow, von, 565
 Buquet, 551
 Bureau, 540
 Burmeister, 123, 232
 Busch, 198, 345
 Butler, A. G., 52, 53
 Camerano, 127, 546, 555
 Cameron, 185
 Canestrini, 58
 Cantoni, 537
 Carlet, 59
 Carpenter, P. H., 421, 422, 436–438
 Carré, 339
 Cassebohm, 178
 Cauroi, du, 344, 354
 Cavanna, 539, 555
 Cazeaux, 185
 Champneys, 139, 185
 Chapman, J., 244
 Charcot, 184
 Chavignerie, de la, 455, 547
 Chwostansky, 165
 Claparède, 425, 564
 Clark, J. A., 51
 Clark, J. W., 465
 Clarke, E., 397
 Claus, 80, 100
 Cleland, 401
 Coale, 393
 Cobbold, 566
 Cockerell, 44
 Cocks, 55
 Colin, 169
 Collin, 563, 565
 Cooke, A. H., 262, 263
 Coquillet, 413
 Cori, 156, 157, 158
 Cornevin, 363
 Cornish, 150
 Cotteau, 446
 Couch, 440, 470, 471
 Coues, 232, 390
 Cowper, 391, 393
 Cramer, 346
 Cuénnot, 429, 433, 441
 Cunningham, 320, 467
 Curtis, 547
 Cusset, 176
 Daintree, 376
 Dale, 482, 547
 Dareste, 458
 Darwin, C., 1, 5, 13, 56, 57, 59, 77, 121,
 288, 449
 Davidoff, 566
 Dawson, 566
 Day, 275, 276, 302, 467, 540
 Delplanque, 354, 370, 377, 379
 Démidoff, 468
 Dendy, 438
 Desmarest, 152
 Devay, 399
 Dimmock, 543
 Dobson, 397
 Dohrn, 86
 Donceel, de, 51
 Dönnitz, 212, 217, 220, 246, 445
 Donovan, 302, 471
 Dorner, 561
 Doué, 456
 Doumerc, 512, 550
 Drechsel, 455
 Drew, 381
 Driesch, 35
 Dubois, 330
 Duhamel du Monceau, 470, 471
 Duméril, 554, 563
 Dunn, 374
 Duns, 528
 Duponchel, 456
 Dusseau, 352, 355
 Duval, 184
 Dwight, 325, 334
 Ébrard, 166, 304
 Eck, 437
 Edward, T., 43, 174, 563
 Ehrenberg, 425, 426, 428
 Eichwald, 560
 Ekstein, 339
 Ekström, 471
 Elwes, 45
 Engramelle, 46
 Ercolani, 369, 377, 380, 381, 392, 393,
 540, 554, 555
 Eudes-Deslongchamps, 180
 Fackenheim, 345, 351, 352, 399
 Failla-Tedaldi, 295
 Fairmaire, 454
 Farge, 327, 399
 Fauvel, 44, 494, 508, 523
 Faxon, 152, 530, 532, 533, 536, 537,
 541, 542, 557
 Field, 466
 Filippi, 425
 Fischer, 41
 Fischer, G., 174
 Fischer, P., 54, 279, 566
 Fischer de Waldheim, 97
 Fisher, W. R., 392
 Fitch, 565
 Fitch, E. A., 44
 Fitzinger, 200
 Flemming, 430
 Flemyng, 307
 Fleutiaux, 548
 Flower, W. H., 106, 119, 217, 220, 233
 Forbes, E., 54, 425, 460
 Forbes, W. A., 356
 Forgue, 143
 Forskål, 540
 Forsyth, 398
 Fort, 344, 356, 358
 Foster, 565

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

INDEX OF PERSONS.

595

- Fotherby, 360, 399
 Franck, 368
 French, 451
 Freund, 459
 Freyer, 524
 Fricken, von, 512
 Friedlowsky, 244, 356
 Friele, 262, 264
 Friend, 563, 565
 Fries, 471
 Frivaldszky, 500
 Froriep, 354
 Fumagalli, 336
 Fürbringer, 131, 133, 135, 142
 Fürst, 399
- Gadeau de Kerville, 415, 455, 482, 510, 548, 549
 Gaillard, 346, 350
 Galton, F., 36, 40, 43, 418, 419
 Garrod, 390
 Gaskell, 86
 Gaskoin, 56
 Gauthier, 443, 445—447
 Gebhard, 459
 Gegenbaur, 77
 Geissendörfer, 360
 Gené, J., 127
 Geoffroy St Hilaire, I., 57, 205, 330, 368, 377, 379, 383, 392, 451, 459, 563
 Gercke, 285
 Gervais, 203
 Gherini, 337
 Giard, 95, 440, 468, 482, 545
 Gibbons, Sir J., 44
 Gibson, 166
 Giebel, 234
 Gifford, 44
 Giraldès, 336
 Girard, 305
 Godman, 53, 297
 Godwin-Austen, 286
 Goldfuss, 436, 437
 Goodman, 376
 Goossens, 300
 Gordon, 56
 Gorré, 187
 Gosse, 566
 Gosselin, Mrs, 44
 Götte, 127
 Gottsche, 466, 471
 Goubaux, 180, 244, 245
 Grandélément, 355
 Grandin, 340
 Gray, J. E., 56, 242, 287, 396
 Gredler, 286, 511, 512, 550, 551
 Green, 515
 Grobben, 169
 Gruber, W., 108, 111, 119, 122, 330, 345, 346, 350, 352, 354, 359, 360
 Guerdan, 458
 Guermonprez, 327
 Günther, 173, 174, 260, 309, 468
 Gurlt, 368
- Gurney, J. H., 43, 55, 392
 Guyon, 566
 Guyot-Daubès, 360
- Haacke, 443, 446
 Hagen, 148
 Hagenbach, 352
 Hammond, 305
 Hanley, 460
 Hannæus, 184
 Harker, A., 419
 Harker, J., 354, 399
 Harmer, 440, 556
 Harrington, 482, 491, 500
 Harrison, 211
 Hartung, 187
 Harvey, 178
 Haworth, 45
 Heineken, 526
 Helbig, 187
 Heller, 170
 Henneguy, 430
 Hennig, 349
 Hensel, 203, 209, 212—216, 220, 223, 226, 232, 244, 246, 269
 Herdman, 171, 172, 439, 456
 Herklots, 527, 528, 529, 542
 Heron, Sir R., 453
 Héron-Royer, 465, 555, 561
 Herrich-Schäffer, 51
 Herringham, 137, 138
 Hertwig, O., 431
 Heuglin, von, 234, 235
 Heusinger, 174, 179
 Hewett, 55
 Heyden, H. von, 488, 512, 548
 Heyden, L. von, 484, 487—490, 494, 517, 523, 550, 551
 Heyndol, 355
 Higgins, 471
 Hill, 391
 Hincks, 425
 His, 177
 Hodgson, 209, 398
 Hoeven, van der, 218
 Hoffmeister, 162
 Honrath, 284
 Hopkins, 48, 73
 Horn, 411
 Horst, 565
 Howes, 126, 153, 210, 391, 421, 515
 Hübner, 305
 Hudson, 56
 Hügel, Baron A. von, 39
 Humphreys, 221
 Humphreys, H. N., 301
 Humphry, 200
 Huxley, 217, 218, 219
- Imhoff, 547
- Jäckel, 393
 Jackson, 331
 Jacqueline-Duval, 524

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

596

INDEX OF PERSONS.

- Jaeger, G., 536
 Janson, 482, 491
 Jayne, 503, 512, 518, 524, 544, 547, 548,
 550, 551
 Jeffreys, G., 54, 457
 Jekyll, Miss, 46
 Jentink, 248, 252, 253
 Jhering, von, 140, 142, 360
 Johnson, Athol, 354
 Jolly, 337
 Joly, 370, 372
 Joseph, 350
 Károli, 532
 Kawall, 551
 Kerckring, 344
 Kiesenwetter, von, 281
 Kingsley, 539, 554
 Kirk, 565
 Kitt, 363, 383, 384, 386, 390
 Kleyn, 453
 Klingelhofer, 547, 551
 Klob, 187
 Koenen, von, 436
 Kolbe, 484, 503
 Kölliker, 142
 Kostanecki, von, 175
 Kraatz, 146, 454, 456, 484, 485, 494,
 498, 502, 506, 509—511, 515, 516,
 523, 545, 547, 548, 550, 551, 552
 Krause, 455, 548
 Kriechbaumer, 147
 Krohn, 425
 Kröyer, 151
 Küchenmeister, 560
 Kuhnt, 339
 Laboulbène, 512
 Lacaze-Duthiers, 171
 Lacépède, 540, 561
 Lafosse, 244
 Lamarek, 4
 Lambert, 446
 Lampert, 435
 Landois, 58, 383, 387, 511, 555
 Lane, 113
 Lang, 566
 Langalli, 336
 Langerhans, 564
 Lankester, 536
 Lannegrace, 143
 Lanzoni, 561
 Lataste, 127
 Laurent, 184
 Lavocat, 354, 372
 Le Clerc, 357
 Leech, J. H., 46
 Lefébvre, 500
 Le Gendre, 184
 Léger, 527, 538
 Legge, 46
 Leichtenstern, 181—185
 Lereboulet, 515
 Le Sénechal, 530, 535, 542
 Letzner, 280, 523, 550
 Leuckart, 168—170, 566
 Levacher, 566
 Leveling, 458
 Lidith de Jeude, van, 58
 Linnaeus, 453
 Lisfranc, 355
 Lister, 218, 457
 Loriol, P. de, 436, 437, 438
 Loudon, 47
 Lucas, 399
 Lucas, H., 462, 536, 542, 550, 551
 Ludwig, H., 433, 566
 Lunel, 58, 554
 Lütken, 433
 Lydekker, 105, 217, 233
 Macalister, A., 112, 278
 MacAndrew, 54
 MacBride, 440
 McCoy, 52
 McIntosh, 470, 564
 Maggi, 530
 Magitot, 198, 203, 205, 210, 221, 244,
 245, 270
 Malm, 469
 Manifold, 451
 Mantell, 436
 Marjolin, 355
 Marsh, 349
 Marsh, C. D., 565
 Marsh, O. C., 364, 366, 368
 Marshall, 86
 Martens, von, 155
 Martin, 430
 Mason, 282, 488, 498, 509, 548, 550
 Mason, F., 355
 Masters, 60, 84, 310
 Mayer, 200
 Mazza, 555
 Meckel, 278, 346, 458, 459
 Melde, 355
 Meldola, 284
 Meyer, A. B., 441, 445
 Michaelsen, 162, 164, 165
 Mielecki, von, 175
 Milne-Edwards, 151, 202, 527
 Mitchell, 561, 563
 Mivart, 212, 217, 219
 Möbius, 401
 Mocquerys, 455, 487, 488, 494, 496, 498,
 501, 503, 507, 508, 512, 515, 517, 522,
 545—548, 550—552
 Mojsisovics, 367
 Moniez, 169, 566
 Moquin-Tandon, 280, 304
 Morand, 346, 348, 354, 399
 Moreau, 540
 Morgan, T. H., 157, 466
 Morot, 245, 384
 Morris, F. O., 44, 401
 Mortillet, de, 186
 Mosley, S. L., 45, 300
 Muir, 352, 399

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

INDEX OF PERSONS.

597

- Müller, A., 512
 Müller, J., 173
 Murray, 336
- Nathusius, H. von, 285, 373, 374
 Nelning, 57, 123, 210, 212, 216, 221, 235,
 242
- Neill, 540
 Neugebauer, 183, 186
 Neuhofer, 176
 Newman, 51, 295, 300
 Newport, 94
 Newton, A., 44, 55
 Nicholls, 155
 Nilsson, 471
 Norman, 100, 457
 Notta, 185
- Oberteuffer, 330
 Oberthür, 44
 Ochsenheimer, 46, 284, 302
 Odin, 459
 Olliff, 51, 52
 Otto, 58, 278, 346, 348, 350, 354, 356,
 458
- Otto, H., 547, 548
 Owen, 119, 188, 211, 261
- Packard, 100, 457
 Paget, Sir J., 175, 177
 Pallas, 180
 Parry, 520
 Partsch, 451
 Paullinus, 184, 187
 Pavese, 565
 Pelseneer, 280
 Pennetier, 482
 Percy, 184, 187
 Perroud, 512
 Perty, 512, 548, 550, 551
 Peters, 200, 277
 Philippi, 443
 Pichancourt, 460
 Pocock, 93, 457, 565
 Pooley, 451
 Popham, 355
 Porritt, 295
 Pott, 399
 Potton, 399
 Pouchet, 451
 Pouulton, 304--307, 320, 321, 323
 Prackel, 184
 Prévost, 457
 Price, 566
 Puech, 181
 Pusch, 436
 Putnam, 174, 396
 Pütz, 366
- Quenstedt, 436
 Quinquaud, 185
- Rabl, 176
 Ragusa, 548
- Rambur, 50
 Ramsay, R. G. W., 46
 Ranse, de, 399
 Rapp, 120
- Rathke, 97, 468
 Redi, 561
 Reichenau, von, 392
 Reid, 458
 Reitter, 281
 Rey, 547, 550
 Richard, 150, 536, 543
 Richardson, 148
 Richmond, 279
 Ridgway, 393
 Rijketsch, 329
 Ritzema Bos, 512, 551
 Rivers, 47
 Röber, 283
 Roberts, G., 461
 Roberts, T., 442
 Robinson, H., 99
 Röder, von, 551
 Rogenhofer, 284, 285
 Romanes, 425-428
 Romano, 523
 Rörberg, 355
 Rösel von Rosenhof, 526, 530, 536
 Rosenberg, 116-118, 138, 373, 383
 Rosinus, 436
 Rouget, 523
 Rousseau, 152
 Roux, 35
 Rüdinger, 330
 Rudolphi, 207, 244
 Rueff, 344
 Rütimeyer, 246
- Saage, 148
 Salvin, 53, 297
 Sanderson, 398
 Sandifort, 458
 Sarasin, 433
 Sartorius, 512, 550
 Saunders, Howard, 397
 Sauvage, 276
 Schäff, 210
 Schleep, 470
 Schlegel, 226
 Schmankewitsch, 96
 Schmeltz, 566
 Schmitz, 177
 Schneider, 547, 550
 Schneider, A., 174
 Schultz, L., 438
 Schultze, O., 194
 Scaler, P. L., 396
 Scaler, W. L., 374
 Seudder, 50
 Seba, 565
 Sedgwick, 84, 92, 93, 173, 197
 Seerig, 348
 Seidel, 176
 Séringe, 523
 Serville, 412, 413

Cambridge University Press

978-1-108-05312-9 - Materials for the Study of Variation: Treated with Especial Regard to Discontinuity in the Origin of Species

William Bateson

Index

[More information](#)

598

INDEX OF PERSONS.

- Shannon, 185
 Sharp, D., 43, 53, 149, 411, 482, 494, 499
 Shaw, E., 413
 Shaw, V., 401
 Sherrington, 137, 138, 144, 168
 Siebold, von, 148
 Sinéty, 184
 Smit, 471
 Smith, E. A., 287
 Smith, F., 551
 Smith, S. J., 151
 Solger, 141
 Soubeiran, 529
 South, 300
 Spengel, 466
 Speyer, 283
 Spinola, 512
 Spronck, 329
 Stamati, 538
 Stannius, 142, 455, 461, 512, 522, 547
 Staudinger, 44
 Steenstrup, 466, 469
 Steindachner, 58, 468
 Steinthal, 359
 Stevens, 41
 Stewart, C., 180, 429, 440, 446
 Storer, 471
 Strahl, 154
 Strauch, 123
 Strecker, 51, 283, 295
 Streng, 352
 Strombeck, von, 436, 438
 Struthers, 103, 105—119, 122, 140, 327,
 329, 334, 346, 351, 356, 370, 389
 Studer, 277
 Sundevall, 471
 Sutton, 105, 176, 179, 180, 188, 555
 Tachard, 398
 Tarnier, 185, 345
 Taschenberg, 512
 Tegetmeier, 57, 393
 Testut, 187
 Thielmann, 277
 Thomas, O., 56, 120, 199, 228, 230, 246
 —249, 254, 257, 258, 313, 322, 397
 Thompson, W., 565
 Thomson, 412
 Thomson, Wyville, 466
 Tiedemann, 184, 512, 536, 540
 Tischbein, 511
 Traquair, 469
 Treitschke, 284
 Trélat, 451
 Treuge, 512
 Trimen, 51, 300
 Trinchese, 118
 Tuckerman, 170, 555
 Turner, Sir W., 465
 Urbantschitsch, 177
 Vaillant, 309, 471
 Viborg, 180
 Virchow, 74, 177, 178, 17
 Voigt, 58
 Vrolik, 58
 Wagner, 421
 Wagner, J., 451
 Walsingham, Lord, 300
 Ward, E., 379
 Warpachowski, 540
 Watase, 451, 463
 Waterhouse, F. H., 45, 545
 Webb, S., 301
 Wehenkel, 366, 368
 Weir, J. Jenner, 45, 51, 52, 254
 Weismann, 76, 304—307
 Welcker, 118, 120
 Weldon, 172
 Werner, 170
 Wesmael, 521
 Westwood, 283, 284, 508, 551
 Weyenbergh, 565
 White, 44
 Wilde, 178
 Wilder, 465
 Williams, 181, 185, 191
 Wilson, 304, 305, 307
 Wilson, E. B., 35
 Windle, 221, 326, 328, 392, 560
 Wiskott, 285
 Wolf, 399
 Woodgate, 284
 Wood-Mason, 367
 Woodward, M. F., 160, 162
 Woodward, Smith, 259
 Wright, 566
 Wright, L., 55, 393
 Wyman, 57, 203, 226, 401, 465, 561
 Yarrell, 59, 469, 471, 540
 Yarrow, 561
 Youatt, 285, 286
 Zeppelin, 565
 Zündel, 180