

V. *A List of the Cicindelidæ, Carabidæ and Staphylinidæ collected by Mr. J. J. WALKER, R.N., F.L.S., in the region of the Straits of Gibraltar.* By GEORGE CHARLES CHAMPION, F.Z.S.

[Read December 1st, 1897.]

IN the Transactions of the Entomological Society for 1891, pp. 375—401, I gave a list of Heteromorous Coleoptera collected by Mr. Walker in the region of the Straits of Gibraltar. The present paper contains a list of the Cicindelidæ, Carabidæ, and Staphylinidæ, forming part of the same collection. It has been prepared with the assistance of M.M. Bedel and Fauvel, both of whom are engaged at the present time in the publication of a list of the N. African species of these families, M. Bedel with the Cicindelidæ and Carabidæ and M. Fauvel with the Staphylinidæ. A considerable portion of their work (that of M. Bedel having been commenced in March 1895, and that of M. Fauvel during the present year) has now been published. The chief object of this paper is to give a list of the species inhabiting the European side of the Straits, as well as of those found on the N. African side. At the end of the Carabidæ, a list of the N. African species not met with by Mr. Walker is inserted, compiled from M. Bedel's Catalogue* as far as published, and from MS. notes kindly communicated by him. In this family a considerable number of species do not cross the Straits, some conspicuous forms being confined to the African side (e.g. *Casnonia olivieri*, &c.) and others (*Carabus favieri*, *Acinopus giganteus*, *Percus politus*, *Aptinus displosor*, &c.) to the Spanish side. Since the publication of the Andalusian lists of Rambur (1842), Rosenhauer (1856), Dieck (1870), v. Heyden (1870), &c., many additional species of Carabidæ have been detected in the country bordering the Straits of Gibraltar. My own researches in Andalusia

* Catalogue Raisonné des Coléoptères du Nord de l'Afrique (Maroc, Algérie, Tunisie et Tripolitaine), avec notes sur la Faune des Iles Canaries et de Madère.

(1895) were almost entirely confined to more inland localities—Ronda, Granada, Lanjaron, Sierra Nevada, &c.,—and I have therefore nothing to add to the present list. To Mr. Walker's unflagging energy the addition of several species to the N. African Catalogue is due, as may be seen by a reference to M. Bedel's work, in which many of his captures are noted. Several interesting species having been found by him at Malaga, they are included in the present list, though this locality is rather beyond the limits of the Straits. The species marked with a * are additions to v. Heyden, Reitter, and Weise's European Catalogue (1891). Of Cicindelidæ and Carabidæ 230 species were met with by Mr. Walker, 68 of which are found in Britain; 35 others are known from the Moroccan side of the Straits, 12 of which are British.

CICINDELIDÆ.

CICINDELA, L.

- C. flexuosa*, F. Tetuan, Gibraltar, and Malaga: sandy places, abundant. The commonest species of the genus at Gibraltar, nearly all the year.
- C. lunulata*, F. Gibraltar: abundant on the sea-beach, not seen in winter.
- C. lunulata* F., var. *littoralis*, F. Tetuan, Gibraltar.
- C. maura*, L., var. *mülleri*, Beuth. Tangier. Gibraltar: sandy banks of streams, local, San Roque, &c. Apparently the only form of the species in the region, of the Straits. All the specimens have the humeral spots widely separated, but in some of those from both Gibraltar and Tangier the median fascia is divided into two spots.
- C. luctuosa*, Dej. Tangier: rarely. Probably confined to Morocco.
- C. trisignata*, Dej. Tetuan and Tangier: not common. A well-known European species. Found by Rambur at Malaga.
- C. campestris*, L. Gibraltar: sandy places, in the spring, common.
- C. campestris*, L., var. *maroccana*, F. Tangier and Gibraltar: perhaps more numerous than the typical form at Gibraltar.

CARABIDÆ.*

CALOSOMA, Weber.

- C. sycophanta*, L. Gibraltar: wood near Algeciras, running on trunks of cork-oaks, four specimens. It occurs in Morocco, Algeria, Tunis, &c.
- C. maderæ*, F. (*indagator*, F.). Tetuan. Gibraltar: two specimens—one in flood refuse, in the dockyard, and one at Sierra Lorca.

CARABUS, L.

- C. favieri*, Fairm. Tangier: one specimen. Not found in Europe.
- C. dufouri*, Dej. Gibraltar: under stones, not rare, winter, Campamento, &c. Not recorded from N. Africa.
- C. melancholicus*, F. Gibraltar: under stones in damp places, winter, not rare. Occurs at Tangier.
- C. rugosus*, F. Tetuan, Tangier: two specimens. Gibraltar: under stones, winter, Rock, Campamento, &c., not rare.

NEBRIA, Latr.

- N. complanata*, L. Tetuan and Ceuta: in plenty at Tetuan. Gibraltar: eastern beach, under wreck timber, &c., invariably below high-water mark, common. Recorded from Tangier.
- N. andalusiaca*, Ramb. Tetuan, Tangier, Djebel Mousa (Ape's Hill), Gibraltar: under stones, not common.
- N. rubicunda*, Quens. Tangier, Algeciras: a few examples, under stones.

LEISTUS, Fröl.

- **L. amplicollis*, Fairm. Djebel Mousa (Ape's Hill) and Gibraltar. One specimen from each locality.

* The record of *Cathoplius asperatus*, Dej., from Gibraltar, mentioned by M. Bedel (Cat. p. 22), upon Mr. Walker's authority, is a mistake: the insect in question was given to Mr. Walker at Gibraltar by Mr. W. Glassford; it probably came from Casablanca or Larache on the Moroccan coast, where the species is known to occur.

Described from a single example from Tangier. The Gibraltar example has been compared by M. Bedel with the type.

L. fulvibarbis, Dej. Tetuan and Gibraltar: under stones, rare.

NOTIOPHILUS, Dum.

N. 4-punctatus, Dej. Gibraltar: several specimens, Linea, &c. Occurs at Tangier and elsewhere in N. Africa.

N. geminatus, Dej. Tangier. Gibraltar: sparingly, San Lorca. Occurs also in the Canary Is. and in Madeira.

SCARITES, F.

S. buparius, Forst. (*gigas*, F.). Gibraltar: sandy places, Neutral ground, &c., common. Occurs in N. Africa, Canary Is., &c.

S. occidentalis, Bedel (*polyphemus*, olim). Tangier. Occurs along the littoral of the Iberian peninsula, from Lisbon to Cadiz (teste Bedel).

S. saxicola, Bon. (*hespericus*, Dej.). Tetuan, Tangier, Gibraltar, and Algeciras: under stones, winter and spring, not rare.

S. terricola, Bon. (*arenarius*, Bon.). Tetuan and Malaga: one example from each locality.

S. lævigatus, F. Tetuan, Gibraltar, and Malaga: a few specimens. Recorded from Tangier.

S. planus, Bon. Tetuan and Ceuta. Gibraltar: in flood refuse, in the spring, not rare.

DYSCHIRIUS, Bon.

D. arenosus, Steph. (*thoracicus*, Gyll.). Tetuan. Gibraltar: sandy ground, behind Linea, locally common.

D. rufo-æneus, Chaud. Tangier. Gibraltar: San Roque, Linea, &c., sandy places, also on clay.

D. punctatus, Dej. Tetuan. Gibraltar: bed of stream near Campamento and on the neutral ground, rare. Recorded from Tangier.

D. chalybeus, Putz. Tetuan: one specimen. A European species. Recorded from Tangier.

D. pusillus, Dej. Tetuan: in plenty. A Mediterranean insect.

TACHYPUS, Lap. (ASAPHIDION, Gozis).

- T. flavipes*, L. Tetuan, Tangier. Gibraltar: under decaying pine branches. First pine wood.

BEMBIDION, Latr.

- B. ambiguum*, Dej. Tetuan and Tangier. Gibraltar: Campamento, &c., not rare.
- B. lampros*, Herbst. Gibraltar: in flood refuse, three examples. Not included in M. Bedel's N. African list.
- B. lætum*, Brullé. Tetuan: one specimen. Gibraltar: one specimen, on a wall, Campamento. Recorded from Tangier.
- B. varium*, Ol., var. *semipunctatum*, Don. Tetuan: not rare. Gibraltar.
- B. lusitanicum*, Putz. Gibraltar: one specimen, Campamento beach, March 1888. Not included in M. Bedel's N. African list.
- B. nitidulum*, Marsh. Gibraltar: in the bed of the river Palmones. Occurs in Tunis and Algeria.
- B. dahli*, Dej., var. *cribrum*, Duv. Tetuan: in flood refuse, not rare. A South European species. Recorded from Tangier.
- B. elongatum*, Dej., var. *nordmanni*, Chaud. Tetuan: in flood refuse, with the preceding. Recorded from Tangier, Tunis, and Algeria.
- B. genei*, Küst. (4-*guttatum*., Ill.). Gibraltar: not rare. Recorded from N. Africa.
- B. normannum*, Dej. Tetuan. A common littoral species in Europe. Recorded from Tangier.
- B. minimum*, F. Tetuan: with the preceding. A well-known European species.
- B. octomaculatum*, Goeze (*sturmi*, Panz.). Tetuan: in flood refuse, two specimens. Gibraltar: one specimen, Campamento. Recorded from Tangier.
- B. vicinum*, Lucas. Gibraltar: two specimens. Recorded from Tangier and elsewhere in N. Africa.
- B. lunulatum*, Geoffr. (*biguttatum* Gyll.). Tangier and Gibraltar.
- B. iricolor*, Bedel. Tetuan and Gibraltar: in flood rubbish, common.

OCYS, Steph.

- O. harpaloides*, Serv. (*rufescens*, Guér.). Tetuan and Gibraltar: in flood rubbish.

TACHYS, STEPH.

- T. bisulcatus*, Nic. Tetuan: two specimens. A European species, occurring also in Madeira.
- T. globulus*, Dej. Tetuan, Gibraltar: in damp places and in flood rubbish, not rare.
- T. hæmorrhoidalis*, Dej. Tetuan. Gibraltar: in flood refuse, common. Recorded from Tangier.
- T. sexstriatus*, Duft., var. *bisbimaculatus*, Chevr. Tetuan: one example. A South European species.
- T. parvulus*, Dej. Malaga: one specimen.
- T. bistriatus*, Duft. Tetuan, Tangier, Gibraltar: not uncommon. Recorded from Madeira and the Canary Is.
- T. micros*, Fisch. (*gregarius*, Chaud.). Gibraltar: two specimens. Recorded from Algeria.
- T. scutellaris*, Steph. Tetuan and Tangier. Gibraltar: in flood rubbish on the beach, Linea.
- T. algericus*, Lucas. Tetuan, Gibraltar: not rare, in wet places. Recorded from Tangier.

ANILLUS, Duv.

- A. massinissa*, Dieck. Tangier: in numbers, under large deeply-embedded stones, in clayey soil. Malaga: three specimens.

PERILEPTUS, Schaum.

- P. areolatus*, Creutz. Tetuan. Gibraltar: in flood refuse, Campamento. Malaga.

TRECHUS, Clairv.

- T. fulvus*, Dej. (*lapidosus*, Daws.). Tangier. Gibraltar: a few specimens in spring, in flood refuse, on the Rock.
- T. quadristriatus*, Schrank (*minutus*, F.), var. *obtusius*, Er. Tetuan and Gibraltar.

- **T. tingitanus*, Putz. Tangier. Gibraltar: not rare, in flood rubbish, Campamento. Not included in von Heyden, Reitter, and Weise's European Catalogue. It has already been quoted by M. Bedel from Gibraltar.

DELTOMERUS, Motsch.

- D. rufipennis*, Dej. Gibraltar: one example. Recorded by M. Bedel from Tangier.

POGONUS, Nicolai.

- P. smaragdinus*, Waltl. Tetuan and Gibraltar: one specimen in each locality. Recorded from Tangier.
P. litoralis, Duft. Tetuan: rarely. A well-known European species.
P. chaldeus, Marsh. Tangier, Tetuan, and Gibraltar: common.

APOTOMUS, Ill.

- A. rufus*, Rossi. Tetuan. Gibraltar: under stones, in winter, common. Recorded from Tangier.
A. flavescens, Apetz. Tangier: not uncommon. Apparently not found on the European side of the Straits.
A. rufithorax, Pecch. Tetuan: a few specimens, including one with the elytra rufous (? = *testaceus*, Dej.). Recorded from Portugal, Tuscany, Sicily, &c., as well as from Tangier.

PANAGÆUS, Latr.

- P. crux-major*, L. Tetuan: in plenty in the Esmir marsh in damp tufts of grass. A well-known European species. Recorded from Morocco by M. Bedel from Mr. Walker's specimens only.

CHLÆNIUS, Bon.

- C. spoliatus*, Rossi. Tetuan: Plain of Buzaghal, Esmir marsh, in plenty, in flood rubbish, &c. A European species. Recorded from Tangier.
C. circumscriptus, Duft. Tetuan: sparingly, with the preceding. Recorded from Tangier. Occurs in Southern Europe, Canary Is., S. Africa, &c.

- C. decipiens*, Dufour (*azureus*, Duft.). Tetuan: four specimens. Gibraltar: under stones, Campamento, very rare. The examples from Tetuan belong to the var. *algericus* Raffr., which is said to be peculiar to N. Africa.
- C. tristis*, Schall. (*holosericeus*, F.). Tetuan: in plenty, Esmir marsh, in cut reeds. Gibraltar: in flood refuse, rare, Campamento. Recorded from Tangier and Malaga.
- C. variegatus*, Geoffr. (*agrorum*, Oliv.). Tetuan: in plenty. Gibraltar: in flood refuse and in damp places, common. Recorded from Tangier.
- C. vestitus*, Payk. Benzus Bay, Marocco. Gibraltar: wet places, abundant, Campamento. Recorded from Tangier.
- C. velutinus*, Duft. Tangier and Gibraltar: common, under stones, in the beds of streams. The variety *auricollis*, Gené, occurred on both sides of the Straits, predominating at Tangier.
- C. nigricornis*, F. Gibraltar: one specimen, in flood refuse, Campamento. Not included in M. Bedel's N. African list.
- C. chrysocephalus*, Rossi. Tetuan, Tangier: plentiful. Gibraltar: under stones, in damp places, local, but common when found.
- C. macrocerus*, Chaud. Tangier: not common. Doubtfully recorded from Spain.
- C. virens*, Ramb. Tetuan: rare. Gibraltar: abundant, under stones, Campamento. Some of the Spanish specimens have the thorax and elytra deep violet, like those found in Marocco. Recorded by Rambur from San Roque.

CALLISTUS, Bon.

- C. lunatus*, F. Gibraltar: one specimen, Sierra Carbonera under a stone in a damp place. This genus has not been noticed as yet in N. Africa.

OODES, Bon.

- O. hispanicus*, Dej. Tangier: one specimen. Found in Spain and Portugal.

- O. mauritanicus*, Luc. Tetuan: in plenty, in the Esmir marsh, in flood refuse. Probably confined to N. Africa.

DIPLOCHILA, Brullé.

- D. ægyptiaca*, Dej. Tetuan: one specimen. Recorded from Andalusia, Tangier, &c.

LICINUS, Latr.

- L. punctatulus*, F. (*granulatus*, Dej.). Tangier and Tetuan. Gibraltar: common and generally distributed, under stones.

BADISTER, Clairv.

- B. bipustulatus*, F. Tetuan. Gibraltar: in moist places and in flood refuse, rare. Recorded from Tangier.
B. peltatus, Panz. Tetuan: four specimens, Esmir marsh. A European species. The only N. African capture mentioned by M. Bedel is Mr. Walker's.

AMBLYSTOMUS, Er.

- A. mauritanicus*, Dej. Tangier. Algeciras and Gibraltar: under bark and beneath stones, winter, not common.
A. metallescens, Dej. Tetuan and Ceuta. A Mediterranean species.
A. niger, Heer. Tetuan. Gibraltar: not rare, in tufts of grass, in winter. Recorded from N. Africa.
A. algerinus, Reitt. Tangier: one specimen. Perhaps confined to N. Africa, but confounded till recently with *A. niger*.

SIAGONA, Latr.

- S. dejeani*, Ramb. Tangier: not rare. Gibraltar: one specimen, in flood refuse, in the Dockyard, April 1887; abundantly at Algeciras, March 1889, under stones on stiff clay soil. Runs very rapidly when disturbed (*Walker*).
S. jenissoni, Dej. Tangier: common. Gibraltar: under stones, common and widely distributed, winter and spring. Same habits as preceding.
S. depressa, F. (*europæa*, Dej.). Tetuan and Ceuta: not rare. Gibraltar: one specimen, in flood refuse, April 1887. Found near Malaga by Rambur.

DITOMUS, Bon. (ARISTUS, Latr.).

- D. clypeatus*, Rossi. Tangier. Gibraltar: under stones, in winter, not rare.
D. sphærocephalus, Oliv. Tetuan, Tangier. Gibraltar, Algeciras: with the preceding, but commoner.

CARTERUS, Dej., Bedel.

- C. cephalotes*, Dej. Tetuan, Tangier: not rare. Gibraltar: near San Roque, in winter, scarce. This and the other species of the genus live in vertical burrows under stones, and are most partial to the stiffest clay soil (*Walker*).
C. tricuspidatus, F. Tetuan: plain of Buzaghal, common. Gibraltar: near Campamento, a few specimens.
C. interceptus, Dej. Gibraltar: in plenty, foot of Sierra Carbonera, in spring. Occurs in Marocco, Algeria, &c.
C. dama, Rossi. Tangier: rare. A Mediterranean species.
C. rotundicollis, Ramb. Tetuan, Tangier, Gibraltar: not rare.
C. fulvipes, Latr. Tetuan. Gibraltar: not rare, in winter, near Campamento. The only N. African capture mentioned by M. Bedel is Mr. Walker's.
C. microcephalus, Ramb. Tetuan, Tangier. Gibraltar: sparingly, in winter, at the foot of the Sierra Carbonera.
C. gracilis, Ramb. Tetuan, Tangier. Gibraltar: in flood refuse, near Campamento.

ERITOMUS, La Brûl.

- E. villosulus*, Reiche. Tangier and Gibraltar: a single specimen at each locality.

ACINOPUS, Dej.

- A. giganteus*, Dej. Gibraltar: two specimens, one at Algeciras and one beyond San Roque. Not known from N. Africa.
A. picipes, Oliv. Malaga: one specimen. Not known from N. Africa.
A. megacephalus, Rossi. Tetuan: not rare. Gibraltar: in flood refuse, &c., in spring, not rare.

ANISODACTYLUS, Dej.

- A. heros*, F. Tetuan, Tangier. Gibraltar: in flood refuse, April 1887.
- A. binotatus*, F. Tetuan: Esmir marsh, a few specimens. A common European species.
- A. winthemi*, Dej., var. *metallicus*, Bedel. Tetuan: Esmir marsh, two examples. It occurs in the Balearic Is., &c.
- A. pæciloides*, Steph. Gibraltar: in flood rubbish, one specimen.

DIACHROMUS, Er.

- D. germanus*, L. Tetuan: Esmir marsh, numerous specimens. Gibraltar: not rare, in wet flood rubbish, Campamento, in January. This species has a very limited distribution in N. Africa.

HARPALUS, Latr.

- H. punctatostriatus*, Dej. Tetuan, Tangier: not uncommon. Gibraltar: in flood refuse, &c., rather common.
- H. distinguendus*, Duft. Tetuan, Tangier. Gibraltar: Neutral ground, &c., not rare.
- H. sculus*, Dej. Tangier. Gibraltar: under stones, not rare.
- H. oblitus*, Dej., var. *patruelis*, Dej. Tetuan, Tangier, Gibraltar: rare.
- H. oblitus*, Dej., var. *tingitanus*, Fairm. Tetuan, Tangier: one specimen from each locality.
- H. litigiosus*, Dej. Gibraltar: Neutral ground, under stones, occasional. Not known from Marocco.
- H. tenebrosus*, Dej. Benzus Bay, Tetuan, Tangier, Gibraltar: rare.
- H. attenuatus*, Steph. (*consentaneus*, Dej.). Tetuan: four specimens. A well-known European species.
- H. sulphuripes*, Germ. Tetuan: one specimen. A European species.
- H. fulvus*, Dej. (*littoralis*, Ramb.). Plain of Buzaghal, Tetuan, and Tangier. Gibraltar: sandy places, not rare.
- H. neglectus*, Dej. Tangier and Tetuan: common. A well-known European species.

OPHONUS (Steph.), Bedel.

- O. cordicollis*, Serv. (*ditomoides*, Dej.). Gibraltar: one specimen. Occurs in N. Africa.
- O. rotundicollis*, Fairm. Tetuan, Tangier. Gibraltar: common, under stones.
- O. quadricollis*, Dej. (*laminatus*, Fairm.). Tetuan: one specimen. A Mediterranean species.
- O. planicollis*, Dej. Tetuan, Tangier. Gibraltar: under stones, Campamento, &c., common. The variety *hispanus* was found at San Roque by Rambur.
- O. puncticollis*, Payk. Gibraltar: a few specimens. M. Bedel possesses an example of this species from Tangier.
- O. subquadratus*, Dej. (*meridionalis*, Dej., *discicollis*, Walth.). Gibraltar: common, under stones. Occurs in N. Africa.
- O. pumilio*, Dej. Tetuan, Tangier, Gibraltar: under stones, &c., not rare.
- O. rupicola*, Sturm (*subcordatus*, Dej.). Tangier: a few specimens. A widely-distributed European species.

SCYBALICUS, Schaum.

- S. oblongiusculus*, Dej. Gibraltar: a few specimens, in flood rubbish and under stones on clay soil, April. Occurs in Marocco and Algeria.

STENOLOPHUS, Latr.

- S. teutonius*, Schrank. Tetuan, Tangier: not rare. Gibraltar: in damp places, occasional. Malaga.
- S. skrimshiranius*, Steph. Tetuan: a few specimens in the Esmir marsh. Gibraltar: in flood refuse, Campamento.
- S. proximius*, Dej. Tetuan: not rare, in the Esmir marsh. A Mediterranean species.

ACUPALPUS, Latr.

- A. marginatus*, Dej. Tetuan and Gibraltar: rare, in flood refuse.
- A. elegans*, Dej. Gibraltar: one specimen, in flood refuse. Occurs in Algeria.
- A. piccus*, Rott. Tangier: two specimens. A Mediterranean species.

- A. dorsalis*, F. Tetuan, Tangier, Gibraltar: in damp places, occasional.
A. brunnipes, Sturm. Tetuan, Tangier, Gibraltar: sparingly, in damp places.

DICHIROTRICHUS, Duv.

- D. obsoletus*, Dej. Tetuan. Gibraltar: in flood rubbish, abundant.

BRADYCELLUS, Er.

- B. distinctus*, Dej. Tetuan and Gibraltar: a few specimens.
B. lusitanicus, Dej. Tetuan, Tangier. Gibraltar: on E. beach, under pieces of wood, common.
B. similis, Dej. Tetuan and Gibraltar: rare.

ZABRUS, Clairv.

- Z. piger*, Dej. Tangier, Tetuan. Gibraltar: chiefly on Neutral ground, common.

AMARA, Bon.

- A. ænea*, De Geer (*trivialis*, Gyll.). Tetuan, Tangier. Gibraltar: on walls, pathways, under stones, &c., common.
A. fervida, Coq. Tangier. Gibraltar: under stones, Campamento, not rare.
A. montana, Dej. (*distincta*, Ramb.). Gibraltar: one specimen. Not known from Marocco.

PÆCILUS, Chaud.

- P. dimidiatus*, Oliv. Gibraltar: under stones and on pathways, not rare. Not recorded from Marocco.
P. crenulatus, Dej. Gibraltar: in damp places and in flood refuse, not rare.
P. crenulatus, Dej., var. *mauritanicus*, Dej. Tetuan and Tangier: not rare.
P. quadricollis, Dej. Tetuan: Plain of Buzaghal, abundant. Gibraltar: under stones, &c., not rare.
P. quadricollis, Dej., var. *vicinus*, Levr. Tetuan. Gibraltar: abundant, under stones, &c. Occurs at Tangier.

- P. purpurascens*, Dej. (*infuscatus*, Dej., *numidicus*, Luc.). Tetuan, Tangier, Djebel Mousa (Ape's Hill). Gibraltar: under stones, near San Roque, not rare.
- P. splendens*, Gené. Tetuan, Ceuta. Gibraltar: damp places and in flood refuse, not rare.
- P. crenatus*, Dej. Tetuan. Gibraltar: under stones, &c., plentiful.
- P. bæticus*, Ramb. (*planidorsis*, Reitt.). Tangier. Gibraltar.
- P. decipiens*, Walzl. Tangier. Gibraltar: not rare, under stones, in winter.
- P. cupripennis*, Chaud. Tangier: in plenty. Confined to N. Africa.

PTEROSTICHUS, Bon.

- P. elongatus*, Duft. Tetuan: not rare, in the Esmir marsh, in flood refuse.

ORTHOMUS, Chaud.

- O. quadrifoveolatus*, Chaud. (? = *hispanicus*, Dej.). Gibraltar: under stones. Not known from N. Africa.
- O. maroccanus*, Chaud. Tangier, Tetuan, Djebel Mousa (Ape's Hill). Gibraltar: under stones in waste places, common.
- O. barbarus*, Dej. Gibraltar: dry waste places, under stones, common. Malaga. Found throughout the whole of N. Africa.

LAGARUS, Chaud.

- L. vernalis*, Panz. Tetuan: one specimen, in the Esmir marsh.

PLATYDERUS, Schaum.

- P. montanellus*, Graells. Gibraltar, Malaga: rare. Not known from N. Africa.
- P. ruficollis*, Marsh. Tetuan: one specimen. Gibraltar: under stones, near Algeciras.
- P. tenuistriatus*, Woll. Tetuan and Ceuta: three specimens. Described by Wollaston from a single specimen found by Crotch at Teneriffe. The insect bears an extraordinarily close resemblance to *Calathus mollis*, which was also found by Mr. Walker at Tetuan.

STEROPUS, Dej.

- S. globosus*, F. Tetuan, Tangier, Djebel Mousa (Ape's Hill). Gibraltar: on paths, under stones, &c., Rock, Campamento, &c., common. Malaga.

PERCUS, Bon.

- P. politus*, Dej. (*stultus*, Rosenh.). Gibraltar: under stones, Campamento, &c., not rare. Not known from N. Africa.

ABACETUS, Dej.

- A. salzmanni*, Germ. Tangier. Gibraltar: not rare, in the bed of a stream; also in flood rubbish, near Campamento.

LÆMOSTENUS, Bon. (PRISTONYCHUS, Dej.).

- L. mauritanicus*, Dej. Tetuan, Tangier. Gibraltar: on the Rock and also near San Roque.
L. punctatostriatus, Fairm. Tangier.
L. complanatus, Dej. Tangier, Tetuan. Gibraltar: in the town, occasional.

CALATHUS, Bon.

- C. circumseptus*, Germ. Tetuan. Gibraltar: locally common, under stones.
C. fuscipes, Goeze, var. *punctipennis*, Germ. Djebel Mousa (Ape's Hill): two specimens. A Mediterranean insect. The var. *latus*, Serv., occurs in Marocco.
C. mollis, Marsh. Tetuan. Gibraltar: dry sandy places, abundant.

CARDIOMERA, Bassi.

- C. genei*, Bassi. Benzus Bay, Marocco: one specimen. Occurs in Sicily.

PLATYNUS, Bon.

- P. fulgidicollis*, Er. Tetuan: in plenty in the Esmir marsh. Replaces *P. viridicupreus* on the African side of the Straits.
P. viridicupreus, Goeze. Gibraltar: in abundance on Neutral ground, under stones, after heavy rain, December and January. Not recorded from N. Africa, where it is replaced by *P. fulgidicollis*.

- P. marginatus*, L. Tangier, Tetuan. Gibraltar: with the preceding, but scarcer; also in flood refuse.
- P. numidicus*, Luc. Tetuan, Tangier. Gibraltar: in flood refuse, in spring.
- P. niger*, Dej. (*dahli*, Preudh. de Borre). Tetuan, Tangier. Gibraltar: common, in flood refuse, Campamento, &c.
- P. ruficornis*, Goeze (*albipes*, F.). Tetuan. Gibraltar: common, in damp places.
- P. dorsalis*, Pont. (*prasinus*, Thunb.). Tetuan. Gibraltar: under stones, locally common. Recorded from Tangier.

OLISTHOPUS, Dej.

- O. fuscatus*, Dej. Tetuan. Gibraltar: on walls, &c., occasionally.

MASOREUS, Dej.

- M. ægyptiacus*, Dej. Gibraltar: dry sandy places, Neutral ground, &c., not rare. Varies a good deal in colour. Also found at Sfax by Mr. Walker in 1874. It is a common species in Tunis and Algeria.

LEBIA, Latr.

- L. fulvicollis*, F. Gibraltar: in tufts and under stones, in winter, rare. Found at Malaga by Rambur. Occurs in N. Africa.
- L. cyanocephala*, L. Gibraltar: under stones, near Campamento, January. Found at Malaga by Rambur. Occurs in N. Africa.
- L. rufipes*, Dej. Gibraltar: two specimens, one found on a wall at Rosia in January. Found at Malaga by Rambur. Occurs in Algeria.

LIONYCHUS, Schmidt.

- L. albonotatus*, Dej. Tetuan: a few specimens, Esmir marsh. Occurs in Spain, France, &c.

PSEUDOTRECHUS, Rosenh.

- P. mutilatus*, Rosenh. Tetuan: Plain of Buzaghal, rare. Tangier. Gibraltar: in nests of *Atta barbara* and *A. capitata*, under stones, sparingly, in November,

February, and March, near Campamento and San Roque. It has also occurred in flood rubbish in spring near Gibraltar. Rosenhauer's specimens were from Algeciras.

METABLETUS, Schmidt.

- M. fuscomaculatus*, Motsch. Tetuan. Gibraltar: on walls, scarce. Mr. Walker has also taken this species in plenty at Sfax.
- M. obscuroguttatus*, Duft. Tetuan: Esmir marsh. A common European species.
- M. scapularis*, Dej. Tangier. Gibraltar: under stones, common.
- M. pallipes*, Dej. Tetuan. Gibraltar: in flood refuse, Campamento, a few specimens.
- M. foveolatus*, Dej. (*cupreus*, Waltl). Tetuan, Tangier. Gibraltar: dry places, not rare.
- M. myrmidon*, Fairm. Gibraltar: one specimen, in rubbish, on Rock, April 1888.

BLECHRUS, Schaum.

- B. minutulus*, Goeze (*glabratus*, Duft.). Tetuan. Gibraltar: on walls, &c., common.
- B. mauritanicus*, Luc. Tangier. Confined to the African side of the Straits.
- B. lævipennis*, Luc.? Djebel Mousa (Ape's Hill). Gibraltar, Malaga: under stones, on walls, &c.
- B. plagiatus*, Duft. Tetuan. Gibraltar: on walls, &c., not rare.

DROMIUS, Schaum.

- D. linearis*, Oliv. Tetuan. Gibraltar: in tufts of grass, &c., not rare.
- D. meridionalis*, Dej. Gibraltar: one specimen. Occurs at Tangier, as well as in Algeria.
- D. insignis*, Luc. Tangier: one specimen.
- D. vectensis*, Rye. Gibraltar: rare, Sierra Carbonera, in the spring.
- D. melanocephalus*, Dej. Tetuan. Gibraltar: near Campamento.

DEMETRIAS, Bon.

- D. atricapillus*, L. Tetuan, Tangier. Gibraltar: in tufts of grass, &c., not rare.

SINGILIS, Ramb.

- S. soror*, Ramb. Tangier, Tetuan. Gibraltar: in tufts of grass, winter, not rare, Rock, Campamento, &c. Rambur's specimens were from San Roque, in the bay of Algeciras. This insect has also been found by M. Favier in Marocco, whence another species of the genus has been recorded, viz. *S. maroccana*, Fairm., from Cape Spartel.
- S. bicolor*, Ramb. Malaga: five examples. Rambur's specimens were found in the environs of Granada. Already recorded from Malaga by Rosenhauer.

TRYMOSTERNUS, Chaud.

- T. truncatus*, Ramb. Gibraltar: one specimen, under a stone, on the Rock, March 2nd, 1889. Recorded from the Rock of Gibraltar, by Rambur. M. Bedel possesses an example of it from Tangier.
- T. refleximargo*, Chaud. Malaga: four specimens, on a hill-side under stones.

CYMINDIS, Latr.

- C. axillaris*, F., var. *favieri*, Fairm. Tangier: common. The var. *africana*, Chaud., also occurs at Tangier. Both varieties are confined to N. Africa.
- C. bætica*, Ramb. Gibraltar: three specimens.

CYMINDOIDEA, Lap. (PLATYTARUS, Schaum).

- C. bufo*, F. (*mauritanica*, Dej.). Tetuan, Ceuta. Gibraltar: under stones in winter, not rare. Recorded from Algeciras and Malaga by Rosenhauer.
- C. gracilis*, Dej. (*protensa*, Rosenh.). Tetuan, Tangier. Gibraltar: with the preceding, occasional.

POLYSTICHUS, Bon.

- P. connexus*, Fourcr. (*vittatus*, Brullé). Gibraltar: one specimen, in flood refuse, in the Dockyard, April 1887. Occurs in Algeria.

ZUPHIUM, Latr.

- Z. olens*, F. Tetuan: not rare, in flood refuse, in the Esmir marsh. A Mediterranean species.

- Z. numidicum*, Luc. Tangier, Tetuan. Found with *Z. olens* at Tetuan. Recorded from Algeciras by Rosenhauer.
Z. sp. ? Tangier : one specimen. Not known to M. Bedel.
 It cannot be referred to either of the N. African species recently described by M. Vauloger (Bull. Soc. Ent. Fr. 1897, pp. 292, 293).

DRYPTA, Dej.

- D. dentata*, Rossi. Tetuan : not rare, in the Esmir marsh.
 Gibraltar : locally common, in damp places, San Roque, Sierra Carbonera, &c. This and the following species are known from Tangier.
D. distincta, Rossi. Tetuan : not rare, in the Esmir marsh.
 Gibraltar : in flood rubbish, in the spring.

CASNONIA, Latr.

- C. olivieri*, Buq. Tetuan : sparingly, in flood refuse and cut reeds, in the Esmir marsh. A genus not represented in Europe.

BRACHYNUS, Weber.

- B. humeralis* Ahr. Tetuan : plentiful, in the Esmir marsh.
 A Western Mediterranean species.
B. exhalans, Rossi. Tetuan : sparingly, with the preceding.
 A Mediterranean species.
B. immaculicornis, Dej. (*græcus*, Dej.). Tangier. Gibraltar : under stones, scarce.
B. crepitans, L. Tangier, Tetuan. Gibraltar : under stones, common.
B. psophia, Dej. Tetuan. Gibraltar : under stones, &c., not rare.
B. psophia, Dej., var. *plagiatus*, Reiche. Tetuan : not rare.
 A Mediterranean insect. Not met with at Gibraltar.
B. sclopeta, F. Tetuan. Gibraltar : under stones, in damp places, in winter, common.
B. angustatus, Dej. (*hispalensis*, Ramb.). Tangier. Gibraltar : with the preceding, sparingly.
B. pygmæus, Dej. Tetuan, Tangier. Gibraltar : with the preceding.

- B. pygmæus*, Dej., var. *testaceus*, Ramb. Tangier: in plenty. Gibraltar: under stones, in damp places, in winter, Campamento, &c., commoner than the typical form.

PHEROPSOPHUS, Solier.

- P. hispanicus*, Dej. Gibraltar: in abundance, in the Neutral ground, among roots of rushes in a sandy spot, in January; once, in flood refuse, Campamento. Malaga. Occurs in Marocco.

APTINUS, Bon.

- A. displosor*, Duf. Gibraltar: in plenty, under stones, in winter, Campamento, &c. Not known from N. Africa.

The following species of Cicindelidæ and Carabidæ known from the North African side of the Straits were not met with by Mr. Walker.

- Cicindela littorea*, Forsk., var. *goudoti*, Dej. Tangier.
Cicindela melancholica, F. Tangier. Occurs in Andalusia, Sicily, &c.
Scarites eurytus, Fisch. Tangier. Occurs in Spain, Sardinia, &c.
Dyschirius globosus, Herbst, var. *tournieri*, Putz. Tangier.
Cillenus lateralis, Sam. Tangier. Widely distributed in Europe.
Bembidion ephippium, Marsh. Tangier. Widely distributed in Europe.
Bembidion andreae, F. Tangier. A European species.
Bembidion laterale, Dej. (*callosum* Küst.). Tangier. Widely distributed in Europe.
Anillus silvanoides, Dieck. Tangier. The only locality known for the species.
Aëpus robini, Lab. Tangier. Chiefly confined to the English Channel.
Trechus rufulus, Dej. Tangier. Occurs in Andalusia and Sicily.
Pogonus luridipennis, Germ. Tangier. A European coast species.
Chlænius infantulus, Chaud. Tangier. Recorded from Southern Spain, perhaps in error.

- Oodes helopioides*, F. Tangier. A well-known European species.
- Eriotomus tomentosus*, Dej. Tangier, Tetuan. Occurs in Southern Spain.
- Harpalus fuscipalpis*, Sturm (*castilianus*, Vuillefr.). Tangier. Occurs in Spain.
- Harpalus goudoti*, Dej. Tangier. A European species.
- Ophonus pubescens*, Müll. (*ruficornis*, F.). Tangier. A common European species.
- Ophonus femoralis*,¹ Coq. (*carteroides*, Fairm., *olcese*, Fairm.). Tangier. Occurs in Spain.
- Bradycellus verbasci*, Duft. Tangier. A common European species.
- Stenolophus mixtus*, Herbst (*vespertinus*, Panz.). Tangier. A well-known European species.
- Acupalpus puncticollis*, Coq. Tangier.
- Acorius ghiliani*, Baudi. Tangier. Occurs also in Southern Spain.
- Amara subconvexa*, Patz. Tangier.
- Amara affinis*, Dej. (*cottyi*, Coq.). Tangier. Occurs in Spain.
- Pterostichus nigerrimus*, Dej. Tangier. A European species.
- Calathus semisericeus*, Fairm. Tangier.
- Sphodrus leucophthalmus*, L. Tangier. A well-known European species.
- Læmostenus algerinus*, Gory. Tetuan. A Mediterranean species.
- Cymindis setifensis*, var. *maroccana*, Reiche. Tangier.
- Phlæozetæus mauritanicus*, Luc. Tangier.
- Singilis maroccana*, Fairm. Cape Spartel.
- Metabletus foveatus*, Fourcr. (*foveola*, Gyll.). Tangier. A common European insect.
- Zuphium microphthalmum*, Putz. Tangier.
- Zuphium vaucheri*, Vul. Tangier.

STAPHYLINIDÆ.

Three catalogues of the North-African species of this family of beetles have already been published by M. Fauvel, the third [Rev. d'Ent. v. pp. 9-100 (1886)] including no fewer than 555 species, belonging to 103 genera; and a fourth [Rev. d'Ent. xvi. pp. 237-348 (1897)] is now in course of publication, this latter in-

cluding also the species inhabiting the Azores, Madeira, the Salvages, and the Canary Islands, but excluding those of Egypt. The Moroccan species enumerated by Quedenfeldt [Beitrage zur Kenntniss der Staphylinen-Fauna von Süd-Spanien, Portugal und Marokko, Berl. ent. Zeitschr. 1884, pp. 351-379] are mentioned by M. Fauvel in his third catalogue: Quedenfeldt's list includes altogether 327 species. Rosenhauer [Die Thiere Andalusiens, pp. 64-88 (1856)] mentions 144 species of Staphylinidæ from Andalusia, including as far inland as the Sierra Nevada. Mr. Walker's collection contains representatives of 237 species, 138 of which are British, some few others (chiefly *Homalota* and *Oxypoda*) being left undetermined at present. These insects, it will be noticed, afford very little data for remarks on geographical distribution, as they are more widely distributed than most Coleoptera—the coprophagous species especially,—and with few exceptions the whole of those enumerated occur on both sides of the Straits, though Mr. Walker did not in every case succeed in finding specimens on each side. The species marked with a * are additions to v. Heyden, Reitter, and Weise's European Catalogue (1891). I am much indebted to M. Fauvel for his assistance in determining most of the critical species, as without his aid the present list could not have been prepared. He has himself included many of Mr. Walker's N. African captures in his fourth catalogue.

OCALEA, Erichson.

- O. concolor*, Kies. Esmir, Marocco. One specimen. A European species, recorded by Rosenhauer from San Lucar.
O. murina, Er. Gibraltar: in flood refuse, near Campamento, several specimens. Recorded from N. Africa.

CHILOPORA, Kraatz.

- C. longitarsis*, Er. Esmir and Malaga.

APTERANILLUS, Fairm.

- * *A. dohrni*, Fairm. Tangier: in plenty, under large stones embedded in damp clayey soil, winter and early spring. Gibraltar: one specimen, near the Sierra Lorca. An addition to the European list.

OXYPODA, Mann.

- O. exoleta*, Er. Gibraltar: on walls and in flood refuse.
Recorded from N. Africa.
O. caloderina, Fauv. Tangier: one example. The type
was found at Bône, Algeria.
O. hæmorrhœa, Grav. Tangier and Gibraltar.
O. recondita, Kr. Gibraltar: three specimens, under oak
bark, Cork Woods, &c. Recorded from Algeria.
O. lurida, Woll. Tangier: one specimen.
O. nigrina, Wat. Tangier.

MICROGLOSSA, Kraatz.

- M. suturalis*, Sahlb. Gibraltar. Recorded from N. Africa.

ALEOCHARA, Grav.

- A. olivieri*, Fauv. Tangier and Gibraltar. Recorded from
Bône, Algeria, and Spain.
**A. rudella*, Fauv. Tangier and Gibraltar: one example
from each locality. Described from a single specimen
found by M. Olcese at Tangier. An addition to the
European list.
A. clavicornis, Redt. Gibraltar: three specimens. Mr.
Walker believes that he found them in the nests of
Aphænogaster testaceo-pilosa, on the Sierra Carbonera.
Recorded from N. Africa.
A. crassiuscula, Sahlb. Tangier and Gibraltar: not rare.
A. tristis, Grav. Gibraltar. Found throughout N.
Africa.
A. bipunctata, Oliv. Gibraltar and Tangier.
A. crassa, Baudi (*publicaria*, Rosenh.). Tangier and Gibralt-
tar: two specimens. Rosenhauer's specimens were
found at Cadiz.
A. tenuicornis, Kraatz. Tetuan, Esmir, and Gibraltar.
Not rare.
A. puberula, Klug. Gibraltar and Tangier. Not rare.
A. lanuginosa, Grav. Esmir, Marocco. A common
European insect.
A. succicola, Thoms. Gibraltar: one specimen.
A. nitida, Grav. Tangier, Esmir, Gibraltar, and Malaga.
Common.
A. grisea, Kraatz. Esmir and Gibraltar.

ASTILBUS, Steph.

- A. canaliculatus*, F. Malaga. Apparently not recorded from N. Africa.

DINARDA, Mann.

- D. nigrita*, Rosenh. Esmir and Gibraltar. Found in plenty near Gibraltar, in the nests of *Aphænogaster testaceo-pilosa*. Rosenhauer's specimens were found at Jerez and Malaga. Recorded by Quedenfeldt from Algeciras, Tangier, and Mazagan.

ALEUONOTA, Thoms.

- A. læviceps*, Bris. Gibraltar: four specimens, including both sexes. Apparently not recorded from Spain.

ALIANTA, Thoms.

- A. brucki*, Epp. (*porosa*, Fauv.). Gibraltar: one specimen. Recorded from Grenada, Carthagen, Sicily, Algeria, and Tunis.

NOTOTHECTA, Thoms.

- N. lævicollis*, Rey. Tetuán, Tangier, and Gibraltar. Found in plenty in ants' nests (*Aphænogaster barbara*), also on walls. Campamento, &c.

HOMALOTA, Mann.

- H. elongatula*, Grav. Esmir, Tangier, and Gibraltar.
H. gregaria, Er. Tangier and Tetuan. A common European species.
H. longula, Heer. Gibraltar: one example. Recorded from N. Africa.
H. exilis, Er. Gibraltar. Recorded from Mogador.
H. vicina, Steph. Gibraltar. Recorded from N. Africa.
H. oraria, Kr. Gibraltar. Recorded from Algeria.
H. longicornis, Grav. Gibraltar. Recorded from N. Africa.
H. nigritula, Grav. Tangier. A common European species.
H. pertyi, Heer. Gibraltar. Recorded from N. Africa.

H. atramentaria, Gyll. Gibraltar. Recorded from N. Africa.

H. fungi, Grav. Esmir, Tangier, and Gibraltar.

H. sordida, Marsh. Tangier and Gibraltar.

H. nigerrima, Aubé. Tangier. A European species.

H. amicula, Steph. (*sericea*, Rey.). Gibraltar. Recorded from N. Africa.

TACHYUSA, Er.

T. balteata, Er. Gibraltar: one example. Recorded from N. Africa by Fauvel and Quedenfeldt.

T. ferialis, Er. Esmir and Gibraltar.

MYRMECOPORA, Sauley.

M. uvula, Er. Esmir, Ceuta, and Gibraltar.

ECHIDNOGLOSSA, Woll.

E. ventricosa, Qued. Gibraltar: in tufts of grass, Campamento, &c., rare. Recorded from Tetuan, Algeciras, and Cordova.

FALAGRIA, Steph.

F. nævula, Er. (*formosa*, Rosenh.). Esmir. Gibraltar: in flood rubbish, Alcadeza Crags, in the Cork Woods. Malaga.

F. sulcata, Grav. Gibraltar. Recorded from N. Africa.

F. obscura, Grav. Esmir, Tangier, Gibraltar, Malaga.

SIPALIA, Rey.

S. plicatella, Fauv. Tangier: four examples. Recorded from Marocco, Algeria, Malta, and Spain.

BOLITOCHARA, Mann.

B. lucida, Grav. Gibraltar: two specimens, under bark, in the Cork Woods. These belong to the dark variety described by M. Fauvel from Algeria.

PHLEOPORA, Er.

P. reptans, Grav. Gibraltar: under bark, Cork Woods. Apparently not recorded from N. Africa.

PHYTOSUS, Curt.

- P. spinifer*, Curt. Tetuan. Occurs also on the Algerian coast, as well as in Europe.
P. nigriventris, Chevr. Tetuan. Recorded from Tangier, as well as from Europe.

PRONOMÆA, Er.

- P. rostrata*, Er. Gibraltar: in flood refuse, near Campamento, one specimen. Occurs in Algeria, as well as in various parts of Europe.

MYLLÆNA, Er.

- M. Kraatzi*, Sharp. Esmir and Gibraltar: in flood refuse.
M. intermedia, Er. Esmir: with the preceding. A European species.

OLIGOTA, Mann.

- O. pusillima*, Grav. Gibraltar. Recorded from N. Africa.

HYPOCYPTUS, Mann.

- H. longicornis*, Payk. Esmir, Tangier, and Gibraltar.
H. apicalis, Bris. Esmir. A European species.

TRICHOPHYA, Mann.

- T. pilicornis*, Gyll. Malaga: three specimens. Recorded from Algeria.

HABROCERUS, Er.

- H. capillaricornis*, Grav. Esmir, Algeciras, and Gibraltar.

LEUCOPARYPHUS, Kr.

- L. silphoides*, L. Gibraltar: on walls, Linea, &c. Occurs in N. Africa.

TACHINUS, Grav.

- T. flavolimbatus*, Pand. Gibraltar and Malaga: on walls, in flood refuse, &c. Found throughout N. Africa.

TACHYPORUS, Grav.

- T. hypnorum*, F. Tangier and Gibraltar. Occurs in N. Africa.
T. solutus, Er. Gibraltar: flood refuse, Campamento. Occurs in N. Africa.
T. nitidulus, F. Esmir and Gibraltar: on walls, &c.

CONURUS, Steph.

- C. pubescens*, Payk. Esmir. Gibraltar: under stones and in tufts of grass; also found in St. Michael's Cave, near the summit of the Rock.
C. immaculatus, Steph. Gibraltar. Recorded from Marocco and Algeria.
C. lividus, Er. Esmir and Gibraltar: in flood refuse, tufts of grass, &c.

BOLITOBIVS, Steph.

- B. pygmæus*, F. Gibraltar: in putrid fungus, First Pine-wood, near San Roque. Recorded from Algeria.

MEGACRONUS, Steph.

- M. analis*, F. Gibraltar: under stones, rare. Recorded from Marocco.
M. inclinans, Grav. Gibraltar: one specimen, Cork Woods, by sweeping. Recorded from Algeria.

MYCETOPORUS, Mann.

- M. splendens*, Marsh. Gibraltar and Malaga: on walls, &c. Recorded from N. Africa.
M. brunneus, Marsh. Gibraltar. Recorded from Algeria.
M. reichei, Pand. Esmir. Gibraltar: under stones and on walls, Algeciras, San Roque, and Campamento.
M. splendidus, Grav. Esmir and Gibraltar.

TANYGNATHUS, Er.

- T. terminalis*, Er. (*varicornis*, Woll.). Esmir, Plain of Buzaghal, Tetuan. Found in numbers in flood refuse. A well-known European species. Quedenfeldt has recorded it from Algeciras.

ACYLOPHORUS, Nordm.

- A. glaberrimus*, Herbst (*glabricollis*, Grav.). Tetuan and Gibraltar. In wet tufts and flood rubbish. Recorded from Algeria. Quedenfeldt found two specimens of it at Algeciras.

HETEROTHOPS, Steph.

- H. dissimilis*, Grav. Esmir, Tangier, and Gibraltar.

QUEDIUS, Leach.

- Q. brevicornis*, Thoms. Gibraltar : under stones, San Roque.
Q. molochinus, Grav. Tangier, Esmir, and Gibraltar : in flood rubbish, &c.
Q. cinctus, Payk. (*impressus*, Panz.). Gibraltar : on walls. Found throughout Algeria.
Q. maurorufus, Grav. Gibraltar and Malaga : in flood rubbish. Recorded from Tangier.
Q. præcox, Grav. Gibraltar. Recorded from Tangier.
Q. obliteratus, Er. Gibraltar : on walls, three specimens. Recorded from N. Africa.
Q. scintillans, Grav. Gibraltar. Recorded from Tangier, Ceuta, and Tetuan.
Q. semiæneus, Steph. Esmir and Gibraltar.
Q. attenuatus, Gyll. Gibraltar.

CREOPHILUS, Mann.

- C. maxillosus*, L. Tangier and Gibraltar.

STAPHYLINUS, L.

- **S. medioximus*, Fairm. Tetuan. Gibraltar : four specimens, in flood refuse, near Campamento, Jan. 1888. Described originally from Tangier and not included in v. Heyden, Reitter, and Weise's European Catalogue.

OCYPUS, Müll.

- O. olens*, Müll. Djebel Mousa (Ape's Hill), Marocco. Gibraltar : under stones and on roads, autumn.
O. ophthalmicus, Scop. (*cyaneus*, Payk.). Esmir : two specimens. A European species.

- O. planipennis*, Aubé. Esmir marsh, plain of Buzaghal: three specimens. A European species.
O. nigrinus, Lucas. Esmir. Gibraltar: under stones, Campamento. Also found in Algeria.
O. æthiops, Waltl. Benzus Bay, Esmir, and Djebel Mousa, Morocco. Gibraltar.
O. æneocephalus, De G. (*cupreus*, Rossi). Esmir and Gibraltar: under stones, &c.
O. walkeri, Fauv.* Esmir.

CAFIUS, Steph.

- C. xantholoma*, Grav. Esmir, Tangier, and Gibraltar.
C. sericeus, Holme. Esmir and Gibraltar.

ORTHIDUS, Rey.

- O. cribratus*, Er. Esmir marsh, plain of Buzaghal: in plenty, in flood refuse. A South-European coast species.

ACTOBIUS, Fauv.

- A. procerulus*, Grav. Esmir and Gibraltar: in flood refuse.

PHILONTHUS, Curt.

- P. sordidus*, Grav. Tangier and Gibraltar.
P. varius, Gyll., var. *bimaculatus*, Grav. Gibraltar: two specimens. Recorded from N. Africa. Also found at Algeciras by Quedenfeldt.
P. fenestratus, Fauv. Esmir. A European species.
P. ebeninus, Grav. Esmir, Tangier, Gibraltar, and Malaga: common.
P. varians, Payk. Gibraltar and Malaga: on walls, &c. Recorded from N. Africa.
P. agilis, Grav. Tangier. A European species.
P. longicornis, Steph. Gibraltar. Recorded from N. Africa.
P. discoideus, Grav. Gibraltar. Recorded from N. Africa.
P. ventralis, Grav. Malaga. Recorded from N. Africa.
P. micans, Grav. Esmir marsh.
P. dimidiatipennis, Er. Esmir marsh: in plenty in flood refuse. Also occurs in Southern Europe.

* M. Fauvel's description of this species will be published in the supplement to his Fourth N. African Catalogue. The name is taken from his list (p. 297).

- P. quisquiliarius*, Gyll. Tangier, Esmir, and Gibraltar: common.
- P. alcyoneus*, Er. Gibraltar: one specimen. Also occurs in N. Africa.
- P. virgo*, Grav. Esmir marsh: two specimens. A European species.
- P. nigritulus*, Grav. Tangier and Gibraltar, common.
- P. punctus*, Grav. Esmir marsh: five specimens. Recorded from Algeria, as well as from Europe.

OTHIUS, Steph.

- O. paralleiceps*, Qued. Gibraltar: on road to Sierra Lorca, six specimens. Recorded by Quedenfeldt from Tetuan and Algeciras.
- O. læviusculus*, Steph. Gibraltar: two specimens. Recorded from N. Africa.

LEPTACINUS, Er.

- L. parumpunctatus*, Gyll. Tangier and Gibraltar.
- L. batychrus*, Gyll. Tangier. A well-known European species.
- L. linearis*, Gyll. Gibraltar.

LEPTOLINUS, Kr.

- L. nothus*, Er. Esmir, Tangier, and Gibraltar: in plenty in flood refuse, tufts of grass, &c. The variety with reddish elytra occurred on both sides of the Straits, in about equal numbers with the dark form.

NUDOBIUS, Thoms.

- N. collaris*, Er. Gibraltar: one specimen, under loose bark of an old oak,* Alcadeza Crags, March 1888. Recorded from Algeria, from under bark of cork-oak, by M. Fauvel. Possibly an addition to the Spanish list.

XANTHOLINUS, Serv.

- X. glabratus*, Grav. Tangier, Esmir, and Gibraltar.
- X. fulgidus*, F. Tangier, Esmir, and Gibraltar.
- X. translucidus*, Scriba. Tangier, Esmir, and Gibraltar: five specimens.

* Found under beech-bark, in Corsica, by myself.

- X. elegans*, Ol. Gibraltar: under stones, in plenty, Campamento. Apparently not recorded from N. Africa. Found singly at Algeciras by Quedenfeldt.
- X. rufipes*, Luc. Gibraltar: one specimen, on the Rock, Jan. 1889. Recorded from N. Africa and Spain.
- X. græcus*, Kr. Tangier. Occurs in Algeria, as well as in S. Europe.
- X. hesperius*, Er. Tangier and Gibraltar: under stones, on walls, &c., not rare.
- X. linearis*, Grav. Esmir, Gibraltar, and Malaga: with the preceding.

CRYPTOBIUM, Mann.

- C. fracticorne*, Payk., var. *jacquelini*, Boield. Esmir and Gibraltar. Found in plenty in flood refuse in the Esmir marsh. All the specimens have a reddish thorax.

DOLICAON, Lap.

- D. nigricollis*, Woll. (*artus*, Karsch). Gibraltar: one example, determined as *D. nigricollis*, Woll. (a species not recognised as European), by M. Fauvel. It differs from Wollaston's types, from the Canary Is., in being larger, and in having the punctures on the head and thorax finer, and those on the hind body coarser. *D. nigricollis* has been recorded by Quedenfeldt from Tripoli.
- D. cribricollis*, Fauv. Tangier: not rare. Also occurs in Spain.
- D. gracilis*, Grav. Esmir and Ceuta. Found in numbers in the Esmir marsh. Occurs in Spain, Portugal, &c.
- D. biguttulus*, Lac. Gibraltar: under stones, near Campamento, occasional. Recorded from N. Africa.

LATHROBIUM, Grav.

- L. anale*, Luc. Esmir, Tangier, and Gibraltar. Found in some numbers in the Esmir marsh.
- L. angustatum*, Lac. Gibraltar: wet places, Campamento. Recorded from Tangier.
- L. labile*, Er. Esmir: one specimen, with the preceding. A European species.
- L. dividuum*, Er. Esmir: one specimen. Occurs in Algeria, as well as in Europe.

ACHENIUM, Curt.

- A. rugipenne*, Fauv. Esmir, Ceuta, and Gibraltar. Found in flood refuse in the Esmir marsh. Described from Spanish specimens.
- A. planum*, Er. Esmir: two specimens, with the preceding. A European species.
- A. striatum*, Latr. Tangier, Esmir, and Gibraltar: under stones, in flood refuse, &c.
- A. depressum*, Grav. Gibraltar: under stones, Campamento. Recorded from Algeria.
- A. rufulum*, Fairm. Gibraltar: one specimen. Apparently not recorded from N. Africa.
- A. brevipenne*, Qued. Tangier: rather common. Not recorded from Europe. Quedenfeldt's specimens were from Tangier and Aseila.
- A. nigriventre*, Fairm. Esmir marsh: four specimens. Recorded from Tangier, as well as from Europe.
- A. tenellum*, Er. Esmir and Gibraltar: not rare in wet places.

SCIMBALIUM, Er.

- S. pubipenne*, Fairm. Esmir and Gibraltar: in flood refuse, &c., not rare.
- S. scabrosum*, Fauv. Tangier and Esmir: in plenty in flood refuse. Apparently confined to Marocco.
- S. testaceum*, Er. Esmir. Gibraltar: under stones, &c., in damp places, Campamento, Sierra Carbonera.

MEDON, Steph.

- M. piceus*, Kr. Gibraltar: in flood refuse, five specimens. Not recorded from N. Africa.
- M. ripicola*, Er. Gibraltar and Malaga. Occurs also in N. Africa.
- M. apicalis*, Kr. Esmir marsh: one specimen. Recorded from Algeria. Found at Algeciras by Quedenfeldt.
- M. obsoletus*, Nordm. Gibraltar: in flood refuse. Recorded from Algeria.
- M. simoni*, Qued.* Esmir, Tangier, and Gibraltar: six specimens. Found in nests of *Aphænogaster barbara* at Gibraltar, near Campamento, January 1888.

* Recorded by Mr. Walker in Ent. Monthly Mag. XXV. p. 377, under the name *M. seminiger*, Fairm.

- M. nigrutilus*, Er. Esmir and Gibraltar: in flood refuse, tufts of grass, &c., common.
M. propinquus, Bris. Esmir, Gibraltar, and Malaga: in tufts of grass, &c.
M. ochraceus, Grav. Gibraltar and Malaga. Occurs throughout N. Africa.

SCOPÆUS, Er.

- S. lævigatus*, Gyll. Esmir marsh: three specimens. Occurs in Algeria, as well as in Europe. Found at Malaga by Quedenfeldt.
S. gracilis, Sperk. Esmir and Gibraltar: in flood refuse, three specimens.
S. minimus, Er. (*sulcicollis*, Quedenf.). Esmir and Gibraltar: two specimens.

STILICUS, Latr.

- S. orbiculatus*, Payk. (*affinis*, Er.). Esmir, Gibraltar, and Malaga.

SUNIUS, Steph.

- S. collaris*, Fauv. Tangier and Esmir: in flood refuse, &c. Occurs also in Spain. Recorded from Algeciras by Fauvel.
S. latus, Rosenh. Gibraltar: under stones, occasional. One of these specimens has been named *S. collaris* by M. Fauvel; but it differs from the Maroccoan examples in being larger and darker, and in having the upper surface more coarsely punctured. Found at Cadiz by Rosenhauer.
S. filum, Aubé. Tangier and Gibraltar: not rare, under stones and in tufts of grass.
S. filiformis, Latr. Tangier: one specimen. A European species.
S. uniformis, Duv. Gibraltar: four specimens. Occurs in N. Africa.
S. melanurus, Küst. Gibraltar: one specimen. Widely distributed in N. Africa, as well as in Europe.
S. bimaculatus, Er. Esmir and Gibraltar: under stones and in tufts, not uncommon.
S. angustatus, Payk. Tangier and Gibraltar.

NAZERIS, Fauv. (MESUNIUS, Sharp).

N. pulcher, Aubé. Gibraltar: nine specimens, in flood refuse, San Roque, March 1888 and January 1889. Occurs in Marocco and Algeria, as well as in Spain and Portugal.

PÆDERUS, Grav.

- P. meridionalis*, Fauv. Esmir, Gibraltar, and Malaga: not uncommon in tufts of grass, &c.
P. caligatus, Er. Esmir, Gibraltar, and Malaga: in flood refuse, rather common.
P. ruficollis, F. Esmir and Gibraltar.

ÆDICHIRUS, Er.

- Æ. pæderinus*, Er. Tangier: common. Also occurs in Sicily, Algeria, &c.
Æ. unicolor, Aubé. Gibraltar: plentifully under stones, in dry tufts, &c., Campamento. Hitherto a rare European insect. Recorded from Tangier. Found singly at Algeciras by Quedenfeldt.
Æ. terminatus, Er., var. *walkeri*, Fauv.* Tetuan: five examples—one from flood refuse in the Esmir marsh, a few miles to the north of Tetuan, and four from dry flood rubbish on the banks of the Bús-feka or Kús River, five miles below the town of Tetuan; these latter were taken on March 4th, 1888. M. Fauvel states that *Æ. terminatus* is spread from Caramania (Asia Minor) to Delagoa Bay.

PROCIRRUS, Latr.

- P. lefebvrei*, Latr. Esmir marsh, sparingly, in flood refuse. Recorded from Sicily and Algeria. Found at Tangier by Quedenfeldt.

PINOPHILUS, Grav.

- P. sculus*, Er. Esmir marsh, plentifully, with the preceding. Recorded from Sicily and Algeria. Not met with by Quedenfeldt.

* Rev. d'Ent. 1897, p. 271.

DIANOUS, Samouelle.

D. cœrulescens, Gyll. Malaga. Not recorded from N Africa.

STENUS, Latr.

S. guttula, Müll. Esmir and Gibraltar: in flood refuse, rare.

S. providus, Er. Tetuan and Gibraltar: in flood refuse.

S. intricatus, Er. Esmir marsh: not rare. A European species. Found near Granada by Rosenhauer.

S. languidus, Er. Esmir and Gibraltar: five specimens.

S. melanopus, Mann. Esmir and Gibraltar: found in numbers in the Esmir marsh.

S. mendicus, Er. Esmir and Gibraltar: not rare.

S. nigritulus, Gyll. Gibraltar: in flood refuse, three examples. Recorded from Algeria.

S. similis, Herbst. Esmir and Gibraltar.

S. canescens, Rosenh. (*major*, Rey). Esmir marsh: six specimens. A European species. Found at Algeciras by Rosenhauer.

S. pallitarsis, Steph. Esmir: one specimen. A European species, occurring also in Algeria.

S. paganus, Er. Esmir marsh: seven examples.

S. fornicatus, Steph. Esmir: one specimen. A well-known European species. Mr. Walker's is the only recorded N. African capture.

S. cordatus, Grav. Gibraltar: one specimen. Recorded from Algeria. Found in Spain by Rosenhauer.

S. elegans, Rosenh. Gibraltar: one specimen. Recorded from Algeria. Found at Algeciras by Rosenhauer.

S. ærosus, Er. (*annulatus*, Crotch). Gibraltar: three specimens. Recorded from Algeria.

S. flavipes, Steph. Gibraltar: one specimen. Recorded from Algeria.

PLATYSTETHUS, Mann.

P. spinosus, Er. Tangier, Esmir, and Gibraltar: not rare, in dung, flood refuse, &c.

P. alutaceus, Thoms. Esmir: two male specimens, with the elytra coloured as in *P. cornutus*, Grav.

- P. capito*, Heer. Gibraltar: four specimens, in flood refuse, Sierra Carbonera, &c. Recorded from N. Africa.
- P. nitens*, Sahlb. Tangier and Esmir: numerous examples. A European species.

OXYTELUS, Grav.

- O. piceus*, L. Tangier, Esmir, and Gibraltar: in dung and flood refuse.
- O. sculpturatus*, Grav. Gibraltar and Malaga. Occurs throughout Marocco.
- O. sculptus*, Grav. Gibraltar: on walls, Campamento. Occurs in Algeria and Marocco.
- O. complanatus*, Er. Gibraltar. Occurs throughout Marocco.
- O. inustus*, Grav. Esmir and Gibraltar: in dung.
- O. plagiatus*, Rosenh. Gibraltar and Malaga: in dung. Occurs in N. Africa. Found at Cadiz by Rosenhauer.
- O. brevipennis*, Fauv. Tangier and Gibraltar.
- O. nitidulus*, Grav. Gibraltar. Occurs throughout N. Africa.
- O. speculifrons*, Kr. Tangier: one specimen. A European species. Recorded from Ceuta.

BLEDIUS, Mann.

- B. taurus*, Germ. Esmir: one specimen. A well-known European species. Found at Cadiz by Rosenhauer, and at Tangier by Olcese.
- B. spectabilis*, Kr. Esmir and Gibraltar: found in numbers at Esmir.
- B. verres*, Er. Gibraltar: not rare. Recorded from Marocco, Tunis, &c.
- B. fossor*, Heer. Gibraltar: sandy places, near Linea, not rare. Recorded from N. Africa.
- B. unicornis*, Germ. Esmir: not rare. A European species.
- B. corniger*, Rosenh. Tangier: one specimen. Found at Cartama, Spain, by Rosenhauer.
- B. debilis*, Er. Esmir and Gibraltar: in banks of streams and pools, burrowing in the sand, common.
- B. arenarius*, Payk. Esmir: four specimens. A European species.

TROGOPHLEUS, Mann.

- T. bilineatus*, Steph. Tangier and Gibraltar: not rare, in flood refuse, &c.
T. corticinus, Grav. Esmir and Gibraltar: in flood refuse, &c.
T. punctipennis, Kies. Esmir: one example. A European species.
T. nitidus, Baudi. Esmir: one example. A European species.

ANCYROPHORUS, Kr.

- A. angustatus*, Er. Esmir and Malaga. Occurs also in Algeria.
A. homalinus, Er. (*venustulus*, Rosenh.). Esmir, Gibraltar, and Malaga: in flood refuse, &c.

COMPSOCHILUS, Kr.

- C. filiformis*, Qued. (*rostri*, Reitt.). Tangier and Gibraltar: one specimen from each locality; the second was found on the bare sand hills beyond Linea. Found singly at Algeciras by Quedenfeldt. Also recorded from the Ionian Islands.

HOMALIUM, Grav.

- H. rivulare*, Payk. Malaga. Recorded from Algeria.
H. allardi, Fairm. Gibraltar: in decaying poplar bark, San Roque, and on a wall, at Campamento. Recorded from N. Africa.
H. vile, Er. Gibraltar: under bark and in fungus, Cork Woods. Recorded from N. Africa.
H. striatum, Grav. Gibraltar: in putrid boleti, First Pine wood, three specimens. Not recorded from N. Africa.

ANTHOBIUM, Steph.

- A. minutum*, F. Gibraltar: on flowers, in spring, common. Recorded from Tangier.

PROTINUS, Er.

- P. atomarius*, Er. Gibraltar: in fungus, Cork Woods, also on the Rock. Recorded from N. Africa.

PHLÆOBIUM, Er.

P. clypeatum, Müll. Gibraltar: in flood refuse, Sierra Lorca, April 1888. Recorded from N. Africa.

MICROPEPLUS, Latr.

M. porcatus, Payk. Tangier and Gibraltar.

M. staphylinoides, Marsh. Gibraltar. Recorded from Algeria.

The following additional species are recorded from the Moroccan side of the Straits by M. Fauvel, in his Fourth Catalogue, so far as published. This adds 67 species to Mr. Walker's list, 38 of which are British.

Gnypeta carbonaria, Mann. Tangier.

Homalota plumbea, Waterh. Tangier and Ceuta.

„ *cæsula*, Er. Tangier.

„ *triangulum*, Kr. Tetuan.

„ *soror*, Kr. Tangier.

„ *africana*, Fauv. Tangier.

„ *rugata*, Fauv. Tangier.

„ *trinotata*, Kr. Tetuan.

„ *oblita*, Er. Tangier.

„ *inermis*, Fauv. Tangier.

„ *minor*, Aubé. Tangier.

„ *zosteræ*, Thoms. (*nigra*, Kr.). Marocco generally.

„ *macrocera*, Thoms. Tangier.

„ *aterrima*, Grav. Tetuan.

„ *pulchra*, Kr. Tangier.

„ *melanaria*, Mann. Tangier.

„ *fuscipes*, Heer. Tangier.

„ *parva*, Sahlb. Tangier.

Myrmecopora sulcata, Kies. Tangier and Ceuta.

Myllæna gracilicornis, Fairm. Tangier.

„ *græca*, Kr. Tangier.

„ *brevicornis*, Matth. Tangier and Tetuan.

Oligota inflata, Mann. Tetuan.

„ *punctulata*, Heer. Tangier and Tetuan.

„ *parva*, Kr. Tangier.

„ *pumilio*, Kies. Ceuta and Tetuan.

Hypocyptus unicolor, Rosenh. Tangier and Tetuan.

- Conurus monticola*, Woll. Tangier.
Mycetoporus angularis, Rey. Tangier.
Bolitobius exoletus, Er. Tangier.
Euryporus æneiventris, Luc. Tangier.
Quedius abietum, Kies. Tangier.
 „ *iridicolor*, Qued. Tetuan.
 „ *duplex*, Fauv. Tetuan.
Leistotrophus marginalis, Gené. Tangier.
Ocypus obsкуроæneus, Fairm. Tangier.
 „ *ater*, Grav. Tangier.
 „ *bellicosus*, Fairm. Tangier.
Philonthus intermedius, Luc. Marocco generally.
 „ *politus*, L. Tangier.
 „ *finetarius*, Grav. Tetuan.
 „ *hesperius*, Fauv. Tangier.
 „ *thermarum*, Aubé, var. *maritimus*, Motsch.
 Tangier.
Othius pilifer, Qued. Tetuan.
Xantholinus punctulatus, Payk. Marocco generally.
Doliceon densiventris, Fauv. Marocco generally.
 „ *illyricus*, Er. Marocco generally.
Lathrobium lusitanicum, Er. Tangier.
Medon despectus, Fairm. Tangier.
 „ *ovaliceps*, Fauv. Tangier.
Scopæus longicornis, Fauv. Tangier and Tetuan.
 „ *didymus*, Er. Tangier.
Pæderus fuscipes, Curt. Marocco generally.
Stenus ater, Mann. Marocco generally.
 „ *pusillus*, Steph. Tangier.
 „ *tarsalis*, Ljungh. Tangier.
 „ *picipennis*, Er. Tangier.
Platystethus oxytelinus, Fauv. Tangier.
 „ *cornutus*, Grav. Marocco generally.
Oxytelus intricatus, Er. Tangier.
 „ *pumilus*, Er. Tangier.
 „ *tetracarinatus*, Block. Tangier.
Trogophlæus exiguus, Er. Tangier.
Compsophilus curtipennis, Fauv. Tangier.
Lesteva fontinalis, Kies. Tangier.
Protinus brachypterus, F. Tangier and Tetuan.
Pseudopsis sulcata, Newm. Tangier.



1898. "V. A List of the CicindelidaB, Carabidæand Staphy-linidæcollected by Mr. J. J. Walker, R.N., F.L.S., in the region of the Straits of Gibraltar. By George Charles Champion, F.Z.S." *Transactions of the Entomological Society of London* 46, 65–103. <https://doi.org/10.1111/j.1365-2311.1898.tb02362.x>.

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