

A List of the Maritime, Sub-Maritime and Coast-frequenting Coleoptera of South Devon and South Cornwall, with especial reference to the Plymouth District.

By

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PREFATORY REMARKS.

It may perhaps be well to say that by maritime species are meant those Beetles whose habitats are covered by the sea for a considerable time during the flow and ebb of the tide. By sub-maritime species are meant the dwellers at high-tide mark or thereabouts, subjected to occasional wettings by the sea, and the species inhabiting brackish pools and wet places in salt-marshes. The coast species comprise individuals living under stones and rejectamenta, as a rule safe from the reach of high tide, and those peculiar to the roots, leaves and flowers of plants attached to the coast, as well as inhabitants of wooden piles on the shore and the denizens of the ooze of fresh-water trickles on the cliffs—excepting species equally obtainable inland.

The Maritime Beetles included in the list comprise eight species, and are preceded by a double dagger (‡) for the sake of distinction; the Sub-Maritime amount to fifty-four species and are preceded by a single dagger (†); the Coast Species number eighty-nine, and are preceded by an asterisk (*).

The Plymouth District has been regarded as including any locality which in a day conveniently admits of four or five hours' collecting, in addition to the journey thither and back. Roughly speaking this embraces the coast line from Slapton Ley on the east to the Seaton Valley (Downderry) on the west.

The writer is fully conscious of the fact that his work necessarily falls considerably short of being a complete catalogue of the species indigenous to the district, as much of the extensive coast line has never been examined by any collector, whilst his own work at the foreshores of the several estuaries and at the numerous tidal creeks has been limited to a few localities of easy access. A large proportion of the country still awaits the attention of the Coleopterist. That it would repay careful

research there need be little doubt, as the writer has seldom ventured into a locality previously unknown to him without having been rewarded by the capture of one or more species new to the district.

The obscure and unobtrusive habits of Beetles must in this connection be remembered. These characteristics, taken in conjunction with the fact that many species abundant in a favourable season may not be discoverable at all in the following year, render it desirable that likely places should receive frequent visits at suitable intervals, if the local Coleopterous Fauna is to be completely enumerated.

The absolute failure of the compiler to secure in the Plymouth area even a single exponent of the genus *Bledius*—and consequently of the genus *Dyschirius* which preys upon it—the ubiquitous *D. globosus* excepted—has long been a source of regret to him, and he cannot but think that they will yet be found in one or other of the creeks in the district, and particularly so as more than one member of both the genera have been taken in numbers at Dawlish Warren on the one side, and at several places in Cornwall on the other side of Plymouth.

Of the truly Maritime and Sub-Maritime Coleoptera there is little doubt as to the species which should be included in such a list as the present; but with respect to coast species the matter is not so readily determined. The main cause of doubt lies in the fact that the life-histories of so many beetles are not yet understood, and experience seems to show that species peculiar to the coast in one district are equally at home inland in another. A hard and fast line of demarcation in the matter of habitat is therefore not yet possible. But inasmuch as it is desirable to have authority in support of one's ruling, the writer, in the main, has adopted Fowler's Coleoptera of the British Isles as the guide for the inclusion of the coast species. A little discretionary power has been reserved however, and a few interesting species which occur with us only on the coast have been inserted in the list, although not definitely asserted by Fowler to be of that habit.

One must not omit to record the successful work of Commander J. J. Walker, R.N., at Whitsand Bay in the seventies and early nineties. With him rests the honour of having first discovered there such rarities as *Harpalus tenebrosus* and *Psammobius porricollis*, as well as a long list of other uncommon Coleoptera, and the writer heartily acknowledges his obligation to Commander Walker for kindly having shown him the habitats of those species. In later years Mr. Philip de la Garde, R.N., did splendid work in the South Devon District, and several additions were made to the British List by him; but perhaps his most notable contribution to the local fauna was the capture at Dawlish of the much-desired *Arena octavii*. It will be long ere the lamentable breach caused by his untimely death can possibly, if ever, be filled.

In conclusion the writer wishes to acknowledge his indebtedness for the assistance he has received in compiling this catalogue to an incomplete manuscript list of the Devonshire Coleoptera, the work of his late lamented friend, Mr. Philip de la Garde, R.N., and he also has to thank his friend, Mr. E. A. Newbery, for valued suggestions and help.

October, 1917.

GEODEPHAGA.

- **CICINDELA GERMANICA* L. Seaton, June, 1895, de la Garde.
- †*DYSCHIRIUS ARENOSUS* Steph. (*THORACICUS* Rossi). Exmouth Warren, Parfitt, not uncommon; de la Garde, three specimens iv/07, common vii/09.
- †*D. SALINUS* Schaum. Exmouth Warren, Parfitt, very rare; de la Garde iv/07 and viii/07. Dawlish, G. C. Champion, August–September, 1907. Par, Vic. Hist. Corn.
- **PANAGÆUS BIPUSTULATUS* Fab. (*4-PUSTULATUS* Sturm.). Whitsand Bay, May, 1890, one under stone on the slopes; Tregantle, March, 1905, one. Penlee Point, May, 1902, one running on pathway, E. E. Lowe. Dartmouth, spring, 1908, H. St. J. K. Donisthorpe. Shaldon, April, 1909, one in moss, de la Garde.
- **CHLÆNIUS VESTITUS* Payk. Slapton Ley; Wembury Beach, June, 1898, several by the rivulet; Lipson Marsh, April, 1900; Compton Fields, 1901. Shaldon, de la Garde, one under the cliff. Has not occurred to me at inland marshes.
- **C. NIGRICORNIS* F. and var. *MELANOCORNIS* Dej. Slapton Ley. The latter a single specimen only.
- **BROSCUS CEPHALOTES* L. Whitsand Bay.
- **BEMBIDIUM CONCINNUM* Steph. Abundant on the shore near Puslinch, estuary of the Yealm, August, 1900; several examples on the shore, Newton Ferrers, June, 1916; in great abundance in the bed of the river near the mouth of the Tavy, 1917.
- †*B. SAXATILE* Gyll. Shaldon, de la Garde. Exmouth, G. C. Champion.
- †*B. VARIUM* Ol. Downderry, August, 1900; Lipson Marsh, May, 1910.
- †*B. MINIMUM* F. Exminster, Parfitt; muddy places by the Exe. Topsham, de la Garde, April and August, 1912.
- †*B. NORMANNUM* Dej. Wivelscombe Creek, June, 1915, six examples. Dawlish Warren, in numbers, March, 1907, de la Garde (a small form).
- †*LIMNÆUM NIGROPICEUM* Marsh. Rare. Batten, December, 1888, one; August, 1889, one; August, 1890, one; September, 1890, two,

deep in the shingle. Rame Head, April, 1902, three examples. Shaldon, one, de la Garde. Torcross, August–September, 1907, G. C. Champion. Side of the Exe, rare, Parfitt.

‡CILLENUS LATERALIS Sam. Millbrook Creek and mouth of the Yealm, in numbers. Wivelscombe Creek and Bere Ferrers, a few specimens. Dawlish Warren, one example, February, 1908, de la Garde.

†TACHYS PARVULUS Dej. Four specimens, in shingle just below high water, about half a mile beyond Bovisand, June, 1905.

‡ÆPUS MARINUS Ström. Generally distributed all along the coast from the Yealm to Cremyll, also found in the estuaries at Wivelscombe, Bere Ferrers, etc. Some seasons abundant. At Batten, October, 1909, quite 200 under one boulder, 70 were captured. Once only I found them in numbers in the roll of rejected seaweed at high-water mark at Millbrook Creek, their usual habitat being under stones embedded an inch or two in clayey shores. They occur practically all the year round and their larvæ may often be taken with them. In 1888 the insect could be obtained at Tinside and in coves between the rocks under the Citadel. Shaldon, de la Garde and G. C. Champion, August–September, 1907.

‡A. ROBINII Laboulb. This species is very like the preceding, but, besides its well-known specific differences, is of more robust build. It occurs all along the coast and may be taken in company with *marinus*, but I have not found it in the estuaries.

In 1889 and 1890 this species occurred to me more commonly than did *A. marinus*.

Probably there are alternating but gradual periods of abundance and scarcity in the occurrence of the two species; and I indeed noted that, in 1909, when *marinus* could be obtained in greater numbers than ever I saw it before, *robinii* did not occur to me at all. It is not easy to appreciate the cause of a definite struggle for existence between these two species, because, although occasionally met with together, the natural habitat of *robinii* seems to be much nearer the Laminarian zone than that of *marinus*. It was in the domain of the latter species that the submarine Hemipteron *Æpophilus* was first discovered, and it has always been in that region that I have taken it in any quantity at Batten. In my experience it will be only by the lucky capture of stray individuals that *Æpophilus* will be obtained where *marinus* abounds, i.e. in the upper reaches of the shore, below high-water mark.

NOTE.—Professor Miall, in his *Natural History of Aquatic Insects*, 1895, p. 376, speaking of *Æpus*, says: “The eyes are very curious. A chitinous plate protects and almost entirely covers them, leaving

only a small round central hole. The form of this plate suggests that it may be employed as a kind of pin-hole camera. Mr. Hammond, who called my attention to this peculiarity, has drawn it in Fig. 114." I have never been able to find this protecting cover to the eyes in any of the Plymouth examples, and recently (in 1916) I called the attention of my friend, Mr. R. J. Baker, to the subject. He dissected out the eyes of several specimens and very soon presented me with a pin-hole plate mounted in balsam on a slide. At the same time he called my attention to the fact that this plate was at the back of the eye and not in front, as the description in Miall would lead one to suppose; and pointed out that the illustration of the eye in section in the work in question depicted the plate at the extreme back of the eye. If, therefore, Mr. Baker is right in assuming the drawing to be correct and the text not so, the supposed curiosity is nothing more than the ordinary optic foramen found probably in all beetles with organs of vision.

- ***PERILEPTUS AREOLATUS** Creutz. Two specimens, Stoke Bay, June 10th, 1917, in shingle by a rill of fresh water. It was in quantity, but I did not recognize it. July 15th, very scarce at the rill, but I discovered it in numbers nearer the sea, where the shingle ended and the rocks commenced, by throwing the shingle into pools formed by the rill, and in which the seaweed *Enteromorpha intestinalis* (kindly named for me by Mr. T. V. Hodgson) was growing. This species is not usually considered a coast insect, but its occurrence under the conditions noted appears to warrant its inclusion in this list. Dr. Cameron, R.N., tells me that "*Perileptus* is common in shingle stream banks in the Eastern Mediterranean right down to the coast." The beetle is rare in England.
- †**TRECHUS FULVUS** Dej. (**LAPIDOSUS** Daws). Three specimens on the beach at Rame Head, April, 1902; one, Bovisand, July, 1905.
- ***T. SUBNOTATUS** Dej. Introduced by Mr. Newbery as British on a single specimen taken by de la Garde, at Shaldon. The insect was shaken out of a tuft of grass evidently dislodged from the cliffs and lying on the beach. Ent. Mo. Mag., Vol. XLVI. (1910), p. 131.
- †**POGONUS CHALCEUS** Marsh. Mouth of the Erme, September, 1906; Wivelscombe Creek, June, 1915; Budshead Creek, Tamerton, June, 1916. Dawlish Warren, abundant, de la Garde.
- ***HARPALUS TENEBROSUS** Dej. This rare species was first discovered in the Plymouth district by Mr. J. J. Walker at Whitsand Bay in 1875, who showed me the exact locality, where it may still be obtained in spring and autumn. Batten, one male, April, 1904. Slapton Ley, Wollaston, 1852.

- *H. *TARDUS* Panz. Mothecombe, September, 1905, three females. Dawlish, de la Garde.
- *H. *ATTENUATUS* Steph. One specimen, Whitsands, June, 1902, but abundant in the following August. One only Millbrook Creek, July, 1902. Dawlish Warren, April, 1907, one only, de la Garde.
- †*DICHIROTRICHUS OBSOLETUS* Dej. Three near Cargreen in rejectamenta on the shore, October, 1912.
- †*D. PUBESCENS* Payk. Near mouth of the Erme, September, 1906, in abundance. Cargreen, October, 1912, one only. Wivelscombe Creek, June, 1915, several. Dawlish, de la Garde.
- **AMARA OVATA* F. Whitsand Bay, not rare. Donderry, E. A. Newbery. Woodbury Common, scarce, Parfitt.
- Ab. ADAMANTINA* Kol. Tregantle, one specimen, August, 1902. Apparently the only British record of this brilliant variety.
- **A. LUCIDA* Duft. Whitsand Bay. Frequent.
- **CALATHUS MOLLIS* Marsh. Torcross, August, 1895. Dawlish, de la Garde.
- †*LIONYCHUS QUADRILLUM* Duft. The first record of this rare species for Devonshire was made by Mr. T. V. Wollaston, who discovered it at Slapton Ley. In *The Zoologist*, 1851-2, p. 3619, he says: "Its habits are very remarkable . . . it selects the driest and most barren shingle at a distance from the beach, so loose and bare that even weeds are unable to exist upon it—where the insect may be seen darting from beneath in the clear sunshine, and as suddenly disappearing. . . . It is difficult to speculate on what a voracious insect like the present can feed in such a position; for the smaller animals in a pebble ridge, so dry and shifting as to refuse nourishment to even a blade of grass, and having more the appearance in fact of a recently opened gravel-pit than anything else, cannot be very numerous." I have several times searched for the insect in the shingles on the marine side of the Ley in vain; but I have taken it on two or three occasions in the shingle, close up to the rocks on the shore from Torcross to the Beesands, in the months of August and May. The examples were almost entirely the aberrant forms, none was a well-marked typical *quadrillum*.
- In May, 1915, I discovered *Lionychus* at Donderry, Cornwall, darting about amongst the shingle at the foot of the sloping slaty rocks at high-tide mark. Seven typical forms, six with the posterior pair of spots very small, one with the latter just discernible, and two aberrations were taken. Remembering Wollaston's remarks, I watched the behaviour of the insects very carefully. They not only

appeared and disappeared with rapidity in the gravel, but also darted about like flashes of light in the sunshine on the rocks close above it. When hard pressed in the chase, they made for joints in the slate in a way which convinced me they were quite familiar with the shelter to be obtained between the layers; and it was not always easy to dislodge them without injury when once they had reached their goal. It was not convenient for me to visit this locality again until August, 1916, when a most careful and prolonged search for some hour and a half failed to reveal a single specimen; but, by opening up the lamellæ of the slate rock below high-tide mark, I secured some half-dozen mature examples. There is little doubt that these specimens had bred there.

Ab. BIPUNCTATUS Heer. Slapton, Wollaston; Torcross; Downderry.

Ab. UNICOLOR Schill. Torcross.

**MICROLESTES (BLECHRUS) MAURUS* Sturm. Bovisand; Wembury; Whitsands.

**DROMIUS NIGRIVENTRIS* Thoms. Dawlish, May, 1906, one only.

**D. VECTENSIS* Rye. On the shore between Torcross and Beesands, one only, May, 1901; at roots same locality, G. C. Champion and myself, about a dozen examples, August, 1907. Seaton, Power.

HYDRADEPHAGA.

**CÆLAMBUS INÆQUALIS* F. Common. Lipson Marsh; Chelson Meadows; Downderry; Slapton Ley.

**BIDESSUS MINUTISSIMUS* Germ. Slapton Ley, in quantity at times. First recorded by Wollaston.

**HYDROPORUS (DERONECTES) ASSIMILIS* Payk. Slapton Ley, de la Garde one only, October, 1907.

**H. LINEATUS* F. Exminster, de la Garde.

**AGABUS CONSPERSUS* Marsh. Plentiful in a pool by the mouth of the R. Seaton, near Downderry.

**GYRINUS ELONGATUS* Aubé. Slapton Ley.

**G. MARINUS* Gyll. Powderham, Parfitt.

PALPICORNIA.

†*HELOPHORUS MULSANTI* Rye. In numbers by the R. Teign, near Teignmouth, June, 1909, de la Garde and myself.

- †*OCHTHEBIUS MARINUS* Payk. In numbers in salt marsh, Insworke Barton, near Millbrook, June, 1909; Slapton Ley, April, 1913. By the R. Teign, de la Garde.
- **O. VIRIDIS* Peyr. Botusfleming, one specimen, ex coll. Rev. T. A. Marshall. Dowlerry, in swarms, edges of muddy pool, August, 1900; again in August, 1916.
- †*O. LEJOLISI* Muls. et Rey. In brackish pools on the rocks between Penlee Point and Rame Head, 55 specimens, September, 1901.
- **O. PYGMÆUS* F. Slapton Ley, April, 1897, in abundance; by the Teign, June, 1909, one only.
- **O. IMPRESSICOLLIS* Lap. (BICOLON Steph.). Lipson Marsh, May, 1899, one only, May, 1910, in swarms; Chelson Meadow, August, 1907; May, 1908, one specimen caught in sweep net, Cawsand to Rame. By the Teign, abundantly, de la Garde.
- **O. METALLESCENS* Rosenh. *var. POWERI* Rye. Seaton, Dr. Power, one specimen, the original capture of this species. One specimen only, in fresh-water trickle on face of rocks on the shore at Bovisand, July, 1912. Subsequent search has failed, both in spring and autumn. Exmouth district, G. C. Champion, a single example in the summer of 1915; later in the year, having discovered the habits of the insect, he took it in some numbers. *Vide Ent. Mo. Mag.*, Vol. LI., pp. 309-10.
- **LACCOBIUS PURPURASCENS* Newbery. Discovered by de la Garde, May, 1906, crawling in swarms among the slimy ooze where water had trickled down the red sandstone cliffs at Shaldon. Exmouth, G. C. Champion.
- †*CERCYON LITTORALIS* Gyll. Generally abundant in the line of rejected seaweed at high-tide mark on the shore.
Var. BINOTATUM Steph. Frequent, with the type form.
- †*C. DEPRESSUS* Steph. Found with the above, and not uncommon at Batten and other places in the Plymouth district. De la Garde records it from Shaldon only in the Teignmouth and Dawlish districts.

BRACHELYTRA.

- †*ALEOCHARA GRISEA* Kr. Batten; Jennycliff; Bigbury Bay; Tregantle; Shaldon; but I never met with it in numbers. Dawlish Warren and Shaldon, de la Garde.
- †*A. ALGARUM* Fauv. Common in decaying seaweed all around the coast.
- †*A. OBSCURELLA* Er. With the above, but not so common.

- **OXYPODA EXOLETA* Er. Downterry, October, 1900, a single specimen.
- †*HETEROTA (ALIANITA) PLUMBEA* Wat. Under seaweed; occurs with us from Wembury to Tregantle, but is not common. Exmouth, very rare, Parfitt. Shaldon, de la Garde. Abundant, August–September, 1907, G. C. Champion.
- **ATHETA THINOBOIDES* Kr. (*LONGULA* Heer). Slapton Ley, in the wet shingle and sand at edge of the water, sometimes in profusion; Wembury beach, several specimens, June and July, 1916; Downterry; Stoke Bay, June, 1917. Mount Edgcumbe shore, E. A. Newbery. Shaldon, de la Garde.
- †*A. VESTITA* Grav. Very common under seaweed on the coast, and often in the estuaries, in small numbers.
- †*A. FLAVIPES* Thoms. (*HALOBRECTHA* Shp.). Common under seaweed and in shingle.
- **A. PUNCTICEPS* Thoms. (*ALGÆ* Hardy). A single specimen at Downterry, October, 1900. Shaldon, de la Garde.
- **A. TRIANGULUM* Kr. Slapton Ley; Cremyll; in seaweed. Shaldon, de la Garde.
- **A. INDUBIA* Sharp. Millbrook Creek, several, May, 1906.
- **A. FUNGI* var. *ORBATA* Er. Burrow Island, May, 1911, one specimen at roots. Dawlish, de la Garde.
- †*MYRMECOPORA BREVIPES*. Butl. In seaweed and shingle, generally distributed around the coast, and also in the estuaries; often in quantity. Shaldon and Dawlish Warren, de la Garde. It appears to replace *M. uvida* Er. with us and was considered to be that species until separated by Mr. E. A. Butler, who observes: “. . . the two insects do not overlap, but *M. brevipes* belongs to Devon and Cornwall, while *M. uvida* extends along the rest of the south coast from Hants to Kent and the estuary of the Thames. The area of *M. brevipes* therefore stands at present as Brittany, Jersey and the two south-western counties of England, while *M. uvida* is generally distributed.”—Ent. Mo. Mag., XLV. (1909), p. 30.
- †*M. SULCATA* Kies. Of similar habit to the above, but occurs in greater numbers.
- †*ACTOCHARIS MARINA* Fauv. (*READINGI* Shp.). Originally found at Plymouth by Mr. J. J. Reading. I searched in vain for years for it in the Batten district, which I understood was its habitat. It was rediscovered by Dr. M. Cameron at Millbrook Creek, in October, 1900, who obtained several specimens under seaweed. A few days later by carefully examining the shingle we together obtained some

40 specimens. July, 1901, 23 specimens; July, 1902, 9 specimens. The species is gregarious, but its minute size, $1\frac{1}{2}$ mm., makes it easily overlooked. Mr. J. J. Walker has taken it on several occasions at Falmouth.

†*SIPALIA TESTACEA* Bris. Batten beach under stones below high tide, and Millbrook Creek in the shingle at roots of rushes at high-tide mark. I have taken this rare species from March to September.

‡*ARENA OCTAVII* Fauv. Dawlish Warren, de la Garde, April, 1907, one specimen under dry tidal rubbish, and a few specimens in later years.

†*PHYTOSUS SPINIFER* Curt. Tregantle in April and May and again in August, occasionally in considerable numbers; Bovisand, one only, July, 1912, and one only, May, 1913; Stoke Bay, June, 1916, one only. De la Garde, Shaldon, February; Dawlish Warren, April. G. C. Champion, August–September, 1907.

†*P. BALTICUS* Kr. Under seaweed and in the sand below it with the above species, often in numbers, at Tregantle. Dawlish Warren, plentiful, March, 1907, and later years, de la Garde. August–September, 1907, G. C. Champion.

†*P. NIGRIVENTRIS* Chev. With the above at Tregantle, but not so abundant. Dawlish Warren, de la Garde, March, 1907, and later years.

‡*DIGLOTTA MERSA* Hal. Batten, once only, a single specimen in April, 1892; under stones much below high water, Millbrook Creek, very sparingly, in May, 1900, 1907, 1909. De la Garde has taken it freely at Dawlish Warren. In June, 1909, at the latter locality I obtained a large specimen, $2\frac{1}{2}$ mm. long, possessed of fully developed wings, the length of each being 2 mm. with a maximum breadth of 1 mm. Apparently this form is extremely unusual. *Vide* G. C. Champion's remarks thereon, *Ent. Mo. Mag.*, Vol. XXXV., pp. 264–5.

†*HETEROHOPS BINOTATA* Er. Jennycliff; Batten; Downterry. Shaldon, de la Garde.

**QUEDIUS UMBRINUS* Er. This uncommon species, which Fowler (*Col. Brit. Isles*, Vol. II., p. 241) says: "Appears to be chiefly found in wooded and hilly or mountainous districts," I once found in considerable numbers at Millbrook Creek in the little salt marsh beyond Palmer's Point in August, 1900. G. C. Champion also records it from damp places on the cliffs, Shaldon (*Ent. Mo. Mag.*, 1908, p. 33).

**Q. SEMIÆNEUS* Steph. Slapton; Tregantle; single specimens frequently, Millbrook Creek; by the Yealm. Shaldon, de la Garde.

- **OCYPUS ATER* Grav. Bovisand ; Batten ; Millbrook Creek, in some numbers ; Tregantle. Shaldon, de la Garde. Looe, Vict. Hist. Corn.
- **PHILONTHUS CRUENTATUS* Gmel. Batten and probably all along the coast.
- **P. PUNCTUS* Grav. Slapton Ley (where it was first discovered by Mr. Wollaston) in May and June, in sundry years. G. C. Champion, August–September, 1907, very rarely. Mr. Bridgman's record in Fowler is an error, although he looked for it continuously for some years, as he told me, *in lit.*, Oct., 1897.
- †*CAFIUS FUCICOLA* Curtis. In decaying seaweed ; as a rule, local and rare ; abundant with us at Batten and Jennycliff, Millbrook Creek, Tregantle. Dawlish district, one record by Mr. Rendel. A large-headed form of the male occurs commonly. In fine specimens the head is as wide as apex of elytra.
- †*C. XANTHOLOMA* Grav. All around the coast, very common.
Var. VARIOLOSUS Shp. Not uncommon with the type form in the Plymouth district ; Shaldon, de la Garde.
Var. VARIEGATUS Er. Batten, Jennycliff, etc., not uncommon.
- †*C. SERICEUS* Holme. Generally distributed with the above, but much less abundant. Shaldon, de la Garde.
 NOTE.—The *Cafii* may be found almost throughout the year and larvæ with them.
- **SCOPEUS MINIMUS* Er. (RYEI Woll.). In April, 1897, in numbers at Slapton Ley, its only British locality, under smallish flat stones amongst herbage several yards from the edge of the Ley towards the sea, but I have not again met with it. Mr. Wollaston took it originally in May, 1869. G. C. Champion, August–September, 1916.
- †*MEDON POCOFER* Peyr. Batten, two specimens only ; Torcross, one only in May, 1901.
- †*M. RIPICOLA* Kr. Batten, July, 1890, two in February, 1897, and in the following May I secured it in quantity in rotting seaweed at Jennycliff ; August, 1902, one only on the beach beyond Bovisand.
- **ASTENUS (SUNIUS) FILIFORMIS* Latr. Whitsand Bay, single specimens occasionally ; Tregantle ; Downderry, August, 1900, six examples, and at various times since ; Bigbury Bay, two specimens, May, 1911. Dawlish, one only, de la Garde.
- **STENUS ATRATULUS* Er. Downderry, August, 1905, E. A. Newbery and myself.
- †*BLEDIUS SPECTABILIS* Kr. One specimen, Dawlish, de la Garde.

†B. UNICORNIS Germ. Dawlish Warren, de la Garde.

†B. SECERNENDUS Joy. Dawlish Warren, in quantity, de la Garde. This species appears in our latest List as a synonym of the var. *subniger* of Schneider, but as he considered his insect to be nothing more than a monstrosity, Joy's name must probably stand.

NOTE.—It is apparently strange that in the immediate neighbourhood of Plymouth the genus *Bledius* should be unrepresented. *Dyschirius*, which preys upon the larvæ and pupæ of *Bledius*, is, however, also as far as I can discover almost absent, its sole exponent being the widely distributed and common little *D. globosus*. Suitable habitats both on the coast and in the estuaries are still perhaps awaiting investigation.

†OXYTELUS FERRISI Fauv. (MARITIMUS Thoms.). In spring and autumn at Tregantle. First taken there by Mr. J. J. Walker. In May, 1902, the var. with testaceous elytra occurred in some numbers. Dawlish, de la Garde.

*O. COMPLANATUS Pand. Batten, Millbrook, etc.

‡TROGOPHLCÆUS HALOPHILUS Kies. Millbrook Creek, two only, May, 1900; in June, on the South Down side, in numbers; July, 1916, several between lamellæ of slate on the shore, creek at Brixton.

†T. UNICOLOR Shp. (ANGLICANUS Shp.). This species was extra-European, being known from New Zealand only, until I found the first specimens under a stone at about half-tide near Palmer's Point, Millbrook Creek; after much search my second example was found on the opposite bank of the creek, near South Down, in a similar situation. In July Dr. M. Cameron, R.N., captured two specimens in the roll of seaweed at high tide near my original locality, and in August we together took 17 specimens in the seaweed. The insect has persisted in the locality to the present time, occurring frequently in considerable numbers; in July, 1905, for example, it was swarming, and I secured 180 specimens in an hour and a half! My second specimen, noted above, cost me 40 hours' work grubbing for it!

There was considerable difference of opinion amongst authorities as to the probable origin of this Staphylinid in England. M. Fauvel held that the species was identical with that from N.Z. Dr. D. Sharp inclined to the "opposite opinion, and to the conclusion that we have here to do with two species almost identical in structure and general character, produced independently in the two antipodes of the world, but under very similar conditions." He also stated: "As, however, *T. anglicanus* belongs to one of the most neglected and unattractive groups of Coleoptera, I shall not be surprised to hear of

its discovery elsewhere on the coasts of Western Europe" (*Vide* Ent. Mo. Mag., Vol. XXXVI., pp. 230 *et seqq.*). In 1908 Mr. Horace Donisthorpe recorded the capture of two examples of this species, one under seaweed at Bembridge and another on the sea wall at St. Helens, Isle of Wight (Ent. Mo. Mag., Vol. XLIV., p. 255).

**LESTEVA FONTINALIS* Kies. First discovered by de la Garde in wet moss on the face of the cliffs at Shaldon in February, 1908, and added to the British List by Newbery (Ent. Mo. Mag. XLVI (1910), p. 109). Exmouth, July–August, 1916, G. C. Champion.

‡*MICRALYMMA MARINUM* Stroem. (*BREVIPENNE* Gyll.). Yealm, Batten, Millbrook Creek, and Wivelscombe; one specimen by the R. Teign in June, 1909. In July, 1897, at Batten with Mr. Newbery and his nephew, the latter called attention to *Micralymma* crawling amongst the Acorn Barnacles, and by scraping these off the rocks we secured a considerable number of the beetle. In June, 1900, at Millbrook Creek, I took 20 examples, with *Podura maritima*, between slates used in an old landing-stage. Again at Batten in September and October, 1907, I found *Micralymma* with larvæ and numbers of *Poduræ* by scraping off the rocks little patches of lichen (*Lichina pygmaea*—teste E. M. Holmes). There is considerable superficial resemblance between *Micralymma* and *Podura*, and as they are so commonly found in association, it would be interesting to ascertain the reason.

†*HOMALIUM LÆVIUSCULUM* Gyll. Seaweed, common.

†*H. RIPARIUM* Thoms. With the above, common.

CLAVICORNIA.

**ABLATTARIA (SILPHA) LÆVIGATA* F. Bovisand; Tregantle, at roots. I have found it in single specimens only.

†*BRACHYGLUTA (BRYAXIS) WATERHOUSEI* Rye. Slapton Ley; in rejectamenta on the shore near Cargreen, October, 1912. On the shore, Hooe Lake, near Radford, A. V. Mitchell.

†*PTENIDIUM PUNCTATUM* Gyll. Generally distributed from Bigbury Bay to Downderry, in great profusion at times under large stones on or close to decaying seaweed, at Batten in particular. Dawlish Warren, de la Garde.

**CORYLOPHUS SUBLÆVIPENNIS* Duv. One specimen only at roots in the sand, Downderry, August, 1905. Slapton, August–September, 1907, G. C. Champion.

- **MICRASPIIS* 16-PUNCTATA L. Wivelscombe Creek, June, 1915. The only locality in the Plymouth district at which this species has occurred to me. Dawlish, de la Garde.
- **SUBCOCCINELLA* (*LASIA*) 24-PUNCTATA. Frequently met with on the coast, but in August, 1916, I found it in numbers, both pupæ and mature insects, at the roots of *Silene* on the shore at high-tide mark at Downderry.
- **CARCINOPIS* MINIMA Aubé. Slapton Ley in April, 1900, and May, 1901, by sifting debris near the water's edge.
- †*PACHYLOPUS* (*SAPRINUS*) MARITIMUS Steph. Tregantle under seaweed and in the sand, sometimes in numbers. Dawlish Warren, de la Garde.
- †*ACRITUS* PUNCTUM Aubé. Tregantle, in May, 1902, in some numbers; of late years single specimens only have occurred to me. First taken there by J. J. Walker. Exminster, one example, de la Garde.
- **MELIGETHES* EXILIS Sturm. Tregantle, on *Armeria*, etc. First taken there by J. J. Walker.
- **CORTICARIA* CRENULATA Gyll. Batten, at roots on the beach, once only; abundant at Slapton Ley. Dawlish, de la Garde.
- **C. IMPRESSA* Ol. (*DENTICULATA* Gyll.). Penlee Point, on gorse attacked by the dodder, May and June, 1910; Whitsand Bay, Slapton Ley, Dawlish.
- **DERMESTES* UNDULATUS Brahm. Slapton Ley, not uncommon at times in small carrion.
- **GEORYSSUS* CRENULATUS Ross. (*PYGMÆUS* F.). In the trickles of water in the cliff face, July–August, 1916, Exmouth, G. C. Champion.
- †*HETEROCERUS* FLEXUOSUS Steph. Exmouth Warren, Parfitt, rare; Dr. Allen, July, 1900.
- **H. FENESTRATUS* Thun. (*LÆVIGATUS* Pz.). Slapton Ley, August, 1895, and June, 1897.

LAMELLICORNIA.

- **APHODIUS* NITIDULUS F. Dawlish Warren, rare, Parfitt. Whitsands, near Rame, in numbers, July, 1890; very abundant, July, 1899.
- **PSAMMOBIUS* PORCICOLLIS Ill. Tregantle, apparently the only British locality, where the species was discovered by J. J. Walker. I have obtained it in March, August, and September in various years.
- †*ÆGIALIA* ARENARIA F. Whitsands, not common. Dawlish Warren, a single specimen, de la Garde. Exmouth Warren, "plentiful in dung of animals, etc.," Parfitt.

MALACODERMATA.

- **PSILOTHRIX CYANEUS* Ol. (NOBILIS Brit. Cat.). Slapton Ley, often in abundance.

PHYTOPHAGA.

- **CHRYSOMELA BANKSI* F. Generally distributed throughout the Plymouth district.
- **C. HÆMOPTERA* L. Whitsand Bay.
- **PSYLLIODES MARCIDA* Ill. Bovisand ; Tregantle, on *Cakile maritima*. First discovered there by J. J. Walker. Dawlish Warren, a single specimen, de la Garde.
- **CASSIDA VITTATA* Vill. Millbrook Creek, one only, May, 1900. Exmouth, Parfitt.
- **C. NOBILIS* L. On July 21st, 1917, A. V. Mitchell took a specimen of a *Cassida* apparently referable to this species on the underside of a pebble amongst low plants on Wembury Beach, just at high-tide mark but well within range of a stormy sea, and on showing it to me we together searched carefully for some considerable time, eventually securing about a dozen specimens each as well as the fully fed larvæ and pupæ. Dwarfed plants of a species of *Atriplex* seemed to me to be a likely food plant, and the perfect insects ate this quite readily in captivity until the end of September, when they ceased feeding, and at the time of writing are resting on the sides of the plaster cage in which they are confined.

RHYNCOPHORA.

- **APION LÆVICOLLE* Kirby. Whitsands, April, 1900. Bank of the Exe, near Topsham, two specimens, August, 1912, de la Garde.
- **APION SCHÖNHERRI* Boh. One specimen, Bovisand, July, 1902.
- **A. ONONICOLA* Bach. (BOHEMANNI Thoms.). On *Ononis*, Tregantle, August, 1902, several examples.
- **A. CONFLUENS* Kirby. Tregantle, J. J. Walker, on *Matricaria* on the slopes above high-water mark. I have occasionally taken it in numbers.
- **A. HOOKERI* Kirby. With us on the coast only, on *Matricaria*.
- **A. ATOMARIUM* Kirby. Whitsand Bay, J. J. Walker, at roots of thyme, sometimes in quantity.

- **OTIORRHYNCHUS ATROAPTERUS* De G. Bigbury Bay, May, 1911. Dawlish Warren, de la Garde.
- **O. RUGIFRONS* Gyll. Batten, single specimens in July, 1890, and June, 1895; Tregantle, often in numbers. Dawlish, April, 1895, J. J. Walker; one, de la Garde, June, 1907. Torcross, G. C. Bignell, May, 1885.
- †*POLYDRUSUS CHRYSOMELA* Ol. Several examples, Wivelscombe Creek, 10th June, 1915, by sweeping the banks just above high water. The specimens were rather abraded.
- **CNEORRHINUS PLAGIATUS* Schall. (*GEMINATUS* Fab.). Burrow Island, May, 1911, in abundance, but did not find it on the mainland; Tregantle, common. Dawlish, de la Garde.
- **SITONES WATERHOUSEI* Walt. Batten, at roots of low plants, September, 1897; near Yealmpton, May, 1911; Whitsand Bay, frequently, in spring and autumn. First recorded therefrom by J. J. Walker.
- **GRONOPS LUNATUS* L. Dawlish Warren, de la Garde, one example, August, 1908. Woodbury Common, July–August, 1916, G. C. Champion.
- **TYCHIUS SCHNEIDERI* Herbst. Recorded in Fowler's Col. Brit. Is. as occurring at Whitsand Bay.
- **RHINOCYLLUS CONICUS* Fröh. Seaton, Major J. N. Still, May and June, 1895, on the slender thistle (*Carduus pycnocephalus*) in some numbers, but in a very restricted area.
- **SMICRONYX JUNGERMANNIÆ* Reich. Abundant in some years on the dodder of the gorse at Penlee Point, in May and June; also at Tregantle.
- **SIBINIA SODALIS* Germ. Dawlish, on flowers of *Armeria*. First discovered there by Felix A. Newbery, and afterwards taken in some numbers by de la Garde.
- **MECINUS CIRCULATUS* Marsh. Tregantle, at roots of low plants in April and May in various years. First recorded therefrom by J. J. Walker.
- **CEUTHORRHYNCHUS TERMINATUS* Herbst. Bovisand, August, 1902, one specimen at roots on the shore; one specimen, Tregantle, June, 1905. Shaldon, de la Garde.
- **C. DAWSONI* Bris. Bovisand, Batten, Whitsands; often in abundance on *Plantago*.
- †*LIMNOBARIS T-ALBUM* L. This weevil is not a recognized salt-marsh species. Fowler says (Col. Brit. Is., Vol. V., p. 379): "Marshy places on aquatic plants; also by general sweeping; local but not uncommon in many districts." It has occurred to me in some

numbers at Wivelscombe Creek, June, 1915, and on the shore at Bere Ferrers, June, 1916, by sweeping sedges, etc. As both of these localities would be covered with salt water for a brief period at spring-tides, and as there are as yet no other records of the capture of this species in Cornwall or Devon, its habit with us seems to render its inclusion in our list desirable.

†*CODIOSOMA SPADIX* Herbst. Batten, in an old wooden pile on the shore, May, 1892; South Down, in old piles stuck into the mud flats, larvæ and perfect insects in numbers, May, 1909.

NOTE.—In July, 1917, amongst a considerable quantity of beetles collected at random, by my friend Mr. N. Micklewood, in the Lizard district, where he was spending a holiday, and given to me, I detected an example of a *Cathormiocerus* which will probably prove to be new to Britain. The species cannot unfortunately at present be determined, but the insect has been submitted to Mr. G. C. Champion, who observed, "It is certainly a *Cathormiocerus*. . . . It seems to come nearest to *curviscapus* Seidl. The thorax is abnormally shaped and vestiture (except setae) abraded, so I doubt if you will make much of it." Further examples of the Weevil are therefore desirable.

HETEROMERA.

- **CRYPTICUS QUISQUILIUS* L. Lizard district, July, 1917, several specimens, collected by N. Micklewood.
- **PHYLAN (HELIOPATHES) GIBBUS* F. Whitsand Bay, frequent. Dawlish Warren, de la Garde.
- **HOPATRUM SABULOSUM* Gyll. Whitsands; Downterry.
- **MICROZOUM TIBIALE* F. Looe, —. Thomas, Vic. Hist. Corn.
- †*PHALERIA CADAVERINA* F. Tregantle, often abundant; Downterry. Dawlish Warren, three examples, April, 1907, de la Garde.
- **CTENIOPUS SULPHUREUS* L. Budleigh Salterton, July–August, 1916, G. C. Champion. Plentiful in the Lizard district and about Hayle. Vic. Hist. Corn.
- **ANONCODES (NACERDES) MELANURA* Schmidt. Cattedown, one specimen, caught in the road; three specimens bred from old timber from a cellar at Stonehouse.
- **MORDELLISTENA PARVULA var. INÆQUALIS* Muls. Tregantle, July, 1900, three specimens.
- †*ANTHICUS ANGUSTATUS* Curt. Bigbury Bay, April 1st, 1907, abundant under seaweed at high-tide mark, under stones and in the sand; I obtained 96 specimens. In the shingle, Blackpool, Slapton, August–September, 1907, G. C. Champion.