

COMMON BEETLES
OF THE MALTESE ISLANDS

BY

A. CARUANA GATTO, B.A., LL.D.


Price Six Pence.

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It is a remarkable fact that whilst in most countries, beetles are among the first objects which draw the naturalist's attention, forming one of the chief attractions to beginners and one of the pursuits most looked after by collectors and scientists, in Malta all other Natural History branches have, comparatively speaking, received much more attention, whilst scarcely anything is known about the Maltese Coleoptera.

There is no work dealing exclusively with them; nor has any catalogue of the species to be found here been published. Mention has been made in general entomological works of some species collected in Malta during the short stay of some entomologist and descriptions of these species have appeared from time to time in scientific periodicals which are to be had with the greatest difficulty. Besides these we have only Prof. Gulia's Course of Entomological lectures delivered in 1857 to a class of gardeners under the auspices of Governor Sir W. Reid at the palace of St. Antonio.

The elementary character of this work and the superficial way in which species are dealt with in it do not allow us to consider it as answering any other purpose beyond that of a series of popular lectures on Maltese Entomology, what Prof. Gulia

explicitly declares in his introduction. It must be acknowledged though that Gulia's work, as the first and only contribution to the study of our insects is very useful and it shows that in comparison with the present time much greater importance was attached to and more notice was taken of Entomology as applied to Agriculture 40 years ago than is done at the present time.

We had not then the orange and vine disease nor did our countrymen fare so badly as now-a-days, but the agricultural education of gardeners was thought much more of. It was thought that a course of popular lectures on economic and agricultural entomology would considerably benefit the Maltese gardeners, a class which have such wrong ideas of the insect-plagues which so often attack their fields and gardens. Unfortunately it was, however, the first and last of what might have been a most useful series of annual lectures. Can anyone believe that the necessity of repeating them at certain intervals has no longer been felt? Or can any one say that our gardeners have a sufficient knowledge about agronomy, horticulture and entomology so necessary an accomplishment for them, or that our gardens and fields have been much improved by this neglect? I do not think a single person will venture to say so, amidst the outcry which is now being raised against the miserable state into which our agriculture has fallen.

To return to my subject. Though the bibliography of our Coleoptera is so very scanty, there is little doubt that collections of Maltese beetles have been made at different times, and we know that Mr. Leach and Dejean have collected in our

Islands, and still later also Messrs Mamo, Schembri Prof. Gulia, Father Libassi, Fauvel, DeLaGarde, Walker and Pool. We regret that we have no records of these collections which have had so much valuable time and labour spent upon them, and this chiefly owing to the carelessness of those in whose charge some of our older ones, such as those of Mamo, Schembri and Gulia, were placed, and who suffered them to decay and waste away.

This has brought us to the regrettable fact that at present not a single collection of Maltese insects exists in any of the public museums of Malta, except some traces of Libassi's collection at the University Museum.

Under such circumstances it would be unwise to attempt to give a complete list of the beetles found in Malta. Much time is required before anything satisfactory can be done in this line. What everyone could do is to further the study of Maltese beetles noting down and publishing personal experiences in collecting. For this reason I have thought that a few words on our common beetles might not be devoid of interest to entomologists and students of our insect fauna.

I have for a long time been cherishing the idea of publishing a detailed catalogue of all the species collected by me in our Islands, but I find that there are yet too many gaps to be filled up, too many doubts to be explained and much more work to be done before such a list would have the exactness necessary even for a first contribution to a thorough study of our beetles.

I will therefore in this note refer only to such species as are seen by everybody and which may be readily collected.

As to their determination I am much indebted to the kindness of Mr. Reitter of Paskau to whom I have sent specimens of every species collected, and to whose authority I refer.

Locally the species I mention offer but little interest, because as I have already said, they are almost all frequent or common forms, but in relation to the Coleoptera of the region some of them are of marked interest and are considered either as rare forms or as endemic to these Islands.

At all events, I am certain from my experience that, if it be only on account of the correct determinations of the species, these few hints may be of some aid to the beginner who just at his first starting often stumbles in the great puzzle of naming his captures.

I cannot pass over in silence the difficulty I met with when I first began my collection. Persons who live in great cities and have every opportunity to compare their specimens with vast museum collections and to refer to standard books of regional entomology, who go over again the well known tracks which so many of their predecessors have carefully prepared for them can hardly imagine the difficulties which the entomologist comes across in our small islands and the length of time required for the work which has to be done alone. On the other hand I must say that in the exploration of such a virgin field, in the laborious task of collecting, setting and studying the specimens collected, in the consequent correspondence with competent authorities about correct naming, and in the pleasant work of drawing the first lines of our

Coleoptero-fauna I have spent some of the happiest days of my life. Not that our beetles are remarkable for bright colours, or extraordinary forms, on the contrary they present on the whole a rather dull appearance and can never compare favourably with the rich insect fauna of Sicily or the Islands of the Levant; but if entomological pursuits are a very genial work for all insect-hunters and lovers of nature in countries where every inch of ground has been explored, they are undoubtedly much more interesting and delightful in an Island where every season and new locality has some particular species of its own which often gives a chance of an interesting discovery and where excursions seldom fail to add new forms.

Reserving all details about rare and minute species for a future occasion, I shall follow no scientific order in referring to the species mentioned in this note, but I shall class them according to the time at which they appear.

Generally speaking, it may be said that Autumn and Spring are the best time for beetle-hunting, so that the stormy winter days and the summer burning sun do not cause much loss to the collector, who can employ his time usefully in setting his specimens. This holds good in general, because there are a few species, especially among those forms which one finds "chez lui" that are to be found at all times. Of these, *Blaps mucronata* Latr. and *B. gigas* L., *Akis bacarozzo* Schrk. and *Scaurus vicinus* Sol. are never missing in cellars or in damp localities. The *Alphitobius diaperinus* Panz., *Sylvanus surinamensis* L., *Laemophloeus pusillus* Schr., *Calandra granaria* L. and *C.*

oryzae L. *Tenebrioides mauritanicus* L. and *Tenebrio molitor* L., are also unfortunately almost constant guests of all grain and wheat stores, as *Echocerus cornutus* F. is of all chests where it has a chance of finding biscuits. A pest to the house is *Lasioderma bubalus* Fairm. which I have found in all imaginable places, including the library, the kitchen and the house terrace, and which is not very particular in choosing its abode as I have found it on walls, under stones, on flowers, in books and not seldom in sweetmeats.

Among leaves and peas it is well nigh impossible not to find numbers of *Mylabris pisorum* L. and *M. rufimana* Boh. whilst their congener *M. chinensis* L. is by no means rare on walls.

Coming out of the protection afforded by houses and buildings, the influence of seasons begins to be felt, and soon after the first September rains one is certain in a walk in the country or even in the neighbourhood of Valletta to see in abundance the *Atheucus variolosus* F. busy in forming and rolling its dung balls, helped sometimes in his task by some stray *Copris hispanus* L. and by the *Geotrupes leavigatus* F. which may be seen everywhere struggling on the ground.

Prof. Gulia mentions also the *A. sacer* L. and *A. semipunctatus* F. which I have never seen, and he adds the *Geotrupes stercorarius* L. which I would rather consider as *G. Douei* Gory.

Such a cursory examination as this is not however sufficient; should the collector wish to know more of the denizens of these beetles haunts, he must make a closer investigation; the research is by no means one of the pleasantest, but it is mostly very successful, and among myriads of

small *Staphylinidæ* and numbers of the black *Aphodius granarius* L. and the yellowish *Aph. hydrochæris* F. he is certain of finding *Bubas bison* L., *Hister major* L. or some shining pretty *Saprinus*, perhaps the *S. chalcites* Ill. or *S. nitidulus* Payk or the *Hister ventralis* Mars. These species will be found in autumn and winter and also in spring, when there will be added to them *Onthophagus taurus* Schr. and *Onth. marginalis* Gebl. and some other species of *Saprinus* or *Aphodius*.

From September to May, and sometimes the whole year round, the loose stones on rocky grounds or on walls by country waysides shelter *Nebria andalusica* Ramb., *Olisthophus fuscatus* Dej., the extremely common *Calathus melanocephalus* L., *Ophonus meridionalis* Dej., *Pleurophorus caesus* Panz., *Lampyris brutia* Costa., *Brachycerus albidentatus* Gyll and *B. barbarus* L. *Gonocephalum rusticum* Oliv. and *Phylax melitensis* Baudi and *Stenosis melitana* Reitt. two endemic species of common occurrence.

Hovering by the road in search of prey are also seen, from Autumn to Spring, *Ocyopus olens* Mull. and *Creophilus maxillosus* L., *Pentodon punctatus* Vill., *Tentyria sardoa* Sol. and *T. Laevigata* Stev. var. *Leachi* Baudi a local form, and *Pimelia sardoa* Sol. var. *subscabra* Sol. one of the commonest species. Representatives of the weevil tribe *Sitona griseus* F., *S. lineatus* L., *S. humeralis* Steph., and *S. discoideus* Gyll., *Hypera phylanthus* Olive., *H. punctata* F., and *H. crinita* Boh., and two *Otiorrhynchi* the *O. lugens* Germ and *O. cribricollis* Gyll. are sufficiently common on walls, and under stones.

The golden beetles are extremely common in Autumn of these *Chrysomela grossa* F. may be seen

in batches on the *Calamintha nepeta*, the *Chrys. americana* L. on rosemary, and *Chrys. Banksii* F. less frequently under stones. In moist localities there is no difficulty in finding specimens of *Bedelius circumseptus* Germ., *Licinus granulatus* Dej., *Silpha Olivieri* Bedel, *Asida Melitana* Reitt. a new local species, *Necrobia rufipes* Degeer and the small *Thorictus grandicollis* Germ., *Anthicus hispidus* Rossi and *A. formicarius* Goeze.

In January and February and also so early as December the black oil beetle *Meloe tuccius* Rossi is frequently seen in country roads, in fields or grassy ground, the *Meloe purpurascens* Germ. of a metallic dark green or purple is not so common, but may be seen at Marsa, Fort Manoel and in gardens. I must note with regard to oil beetles as a fact of not frequent occurrence that some years ago I collected at Marsa a specimen of *M. tuccius* coupled with another of *M. purpurascens*. Not knowing then their specific difference I was so much surprised that I considered the two species as the sexes of the same one, but I soon found that was a very exceptional case.

With oil beetles appear specimens of our endemic and interesting new species of *Hapalus*, which Mr. Reitter has had the kindness to name *H. Caruanae*. This pretty insect is found from January to February on walls or on the grass by the roadsides at Musta, Attard, Naxaro, St. Paul's Bay etc. The male of a deeper tint than the female has its thorax and head covered with velvety hairs and possesses stronger antennæ; the female has generally a voluminous abdomen, which the orange elytræ marked with a black spot at their base cover hardly by two thirds, but

after the laying of a long uninterrupted string of eggs in any imbricate disposition the abdomen attains its usual dimensions and the elytræ cover again the whole body. All the parts of the insect have a marked smell of red pepper.

It is not to be expected in Malta abundance of water-bettles, but in and about water pools and slow running streamlets at Imtahleb, Ghirghenti, Gneina etc, under stones or among water-algæ one is sure to find *Helochares lividus* Forst., *Berosus signaticollis* Charp., *Agabus nebulosus* Forst. *Parnus algiricus* Luc. and *Hydroporus tessellatus* Drapiez, whilst the shining black *Meladema coriaceum* Lap. darts rapidly in water reservoirs often coming to the surface for a new plunge.

Sphaeridium bipustulatum Marsh another species belonging to the *Hydrophilidae* is common enough in animal or vegetable refuse.

Spring with its enlivening influence and the gay array of flowers which it brings into blossom haunts out of their winter retreats hosts of insects which begin to appear at the time of the spring passage of birds in the Island. The innumerable larvæ and pupæ of beetles which had been waiting the first warm days come out and

“Myriads on myriads, insect armies waft”

“Keen in the poison’d breeze; and wasteful eat”

“Through buds and bark into the blacken’d core”

“Their eager way.”

This is the best time for collecting, and the valleys gardens and fields yield to the entomologists a most acceptable harvest of flower hunting beetles. Among these our two species of Barbary

bugs, Maltese "Busuf", *Epicometis squalida* Scop. and *Leucocelis funesta* Poda occupy a prominent place as two of our most destructive beetles. No flower is safe from their attacks and they destroy the caducous white petals of the hawthorn as they spoil the blossoms of the most elegant cultivated roses or lilies; for them nature's contrivances to protect flowers are of no effect, they tear through the corollas of the snapdragon no less than the delicate perianths of the wild tulip and of the star of Bethlem. They are a scourge in the floral world, their visits meaning certain ruin to pistils, stamens and ovaries, and though they may help by their hairy elytræ the fertilization of flowers, the benefit derived therefrom bears no proportion to the great damages they cause.

The branched flower-stalks of the asphodel carry lots of a pretty longicorn the *Agapanthia cynaræ* Germ. and the Composites swarm with *Attali*, *Psilothrix* and *Anthreni* which make themselves useful in their fertilization and offer to the entomologist the bright green or bleu *Psilothrix cyaneus* Oliv. and *P. melanostoma* Oliv., *Attalus dalmatinus* Er., *Haplocæmus pectinicornis* Luc., *Anthrenus fasciatus* Herbst. and *A. verbasci* L. *Drilus flavescens* Rossi may be captured in land shells. Among weevils *Mylabris imbricornis* Panz., *M. bimaculata* Oliv. and *M. laticollis* Boh. will be found on Umbellifers. Bigger flowers are subject to visits of *Lixus algirus* L., *Aethiessa floralis* F. and *Oedemera simplex* L., whilst *Labidostomus taricorins* F. moves its serrate antennæ on every sort of flower. Mallows are infested by *Podagrira semirufa* Kust.

Some of the handsomest of our beetles appear now. Rosaceous trees will afford the rose-chaffer *Potosia floricola* Herbst. var. *cuprina* Motsch, and two longicorns the *Cerambix nodulosus* Germ. and *Niphona picticornis* Muls.

In the moist soil at Marsa the collector will be glad to find the handsome *Chlaenius azureus* Duft, *C. variegatus* Fourc and *C. festivus* F., besides *Stenolophus teutonius* Schr, *Acupalpus dorsalis* F., *Anthicus* 4 *guttatus* Rossi, *A. minutus* Lat, and *A. humilis* Germ. and the ever varying *Anysodactylus pœcilioides* Steph. which presents all shades of black, bluish black and metallic green, so that at first it is very easy to mistake it for 5 or 6 different species. *Scarites planus* Bon., *Aristus capito* Deg., *Ditonus calydonius* Rossi and *D. dama* Rossi and *Acinopus ambiguus* Dej. have also no claim to be considered as rarities.

A superficial search under stones or on walls will reveal *Cleonus excoriatus* Gyll. to which in June will be added *C. madidus* Oliv. plentiful on house terraces, and *Larinus flavescens* Germ. on thistles.

In summer the more remarkable species are the tiger-beetles on sandy beaches like Birzebugia, Marsascale, Mistra and the Marsa. Of these *Cicindela littoralis* F. is common and *C. melancolica* F. is rarer. In fields the orange-coloured *Aulacophora abdominalis* F. feeds plentifully on melon and cucumber plants, and *Epilachna chrysomelina* F. lives on the *Ecballion elaterium*.

Before concluding I must not forget to mention one of our commonest beetles, the ladybird, *Coccinella* 7 *punctata* L. which together with her two allies *Chilocorus bipustulatus* L. and *Echocomus* 4 *pustulatus* L. wage for us a useful war with scale insects.

No one is to expect that I could exhaust the subject in this short paper. I shall be satisfied and amply repaid for my labour if it induces others to continue this study to which I could not nor can henceforward devote the amount of time required.

When we have such a limited area before us and such an interesting field for our researches we ought not to stop until it be fully explored and before a catalogue of our beetles be completed. Such a work will be not only of local interest but also a valuable contribution to the knowledge of the distribution of beetles in the Mediterranean Region.
