de fritillum Rbr. que j'ai trouvée chez tous les exemplaires examinés par moi et dont j'ai indiqué la provenance tout à l'heure. En examinant les figures données par Elwes et Edwards pour l'armure de leur malvoides je m'étais demandé si, malgré quelques différences tenant peut-être au mode de préparation, elle n'était pas semblable à celle du fritillum Rbr. Je

me suis adressé à ces excellents auteurs et M. Edwards, qui s'est occupé de cette partie du travail, est tombé d'accord avec moi; un échange de microphotographies de l'armure de malvoides et de celle de fritillum nous a convaincus tous deux que: malvoides Elw. et Edw. = fritillum Rbr.

Fritillum Rbr. a deux générations dans les Pyrénées et en Italie; je m'en suis assuré par des préparations d'exemplaires du printemps et de l'été; il n'en a naturellement qu'une seule en Juillet et Août dans les Alpes, au moins chez nous en Suisse. Et, je le répète, ce qu'on a pris pour une seconde génération de malvae, c'est en réalité la seconde génération de fritillum, et dans nos Alpes, ce que l'on a pris pour des malvae en Juillet et Août, ce sont des fritillum. La confusion s'explique très facilement par le fait que ces deux papillons se ressemblent comme deux frères jumeaux; cependant en étudiant ces deux espèces de près on finit par arriver à les distinguer assez facilement à condition d'en avoir sous les yeux, non pas un ou deux exemplaires, mais deux séries. Dans un travail en préparation pour le Bulletin de la société lépidoptérologique de Genève je donnerai tout au long les caractères distinctifs qui permettent de distinguer malvae L. de fritillum Rbr.

Je me permets en terminant ce petit article de solliciter l'aide de mes collégues pour compléter ce travail; tous ceux qui voudront bien me sacrifier quelques exemplaires, munis d'étiquettes de provenance et de date de capture, me rendront le plus grand service. Il faudrait en effet connaître, mieux et plus complétement que je n'ai pu le faire, la distribution géographique réelle des deux espèces et étudier les variations, les races et les aberrations de fritillum qui sont inconnues jusqu'ici.

Il va sans dire que l'étude des premiers états de fritillum est à faire et que bien d'autres points de son étude anatomique que j'ai cherché à débrouiller doivent venir compléter ce que nous apprend l'armure génitale; celle ci nous montre que ce papillon diffère de malvae, qu'il n'en est point une variété mais qu'il constitue une espèce distincte.

57. 89 Lycaena: 15

An Entomological Riddle.

By the Hon. N. *Charles Rothschild,* M.A., F.L.S.

The life history of *Lycaena arion* is still a mystery, and it is much to be hoped that entomologists in this country, who have some spare time, will give a portion of it at all events to attempting the elucidation of this interesting problem. All that is really known of the life history of this attractive butterfly can be summed up in a few words. The eggs are laid on the wild thyme. The larvae eat this plant until they have moulted three times, which takes place usually in the late summer or early autumn, they then refuse to eat this foodplant, and in captivity wander about and perish. The painstaking researches of Mr. Frohawk have further demonstrated that the insect hibernates as a larva, and when full-fed pupates under the ground. Like the larvæ of most Lycænas that of *L. arion* is myrmecophilous, but it is absurd to assume that any portion of the larval stage is really directly associated with ants, as, were this the case, the numerous nests that have been submitted to rigid and minute examination, must have yielded examples of the larve, and none have been found. Mr. Frohawk himself is, we believe, convinced that his original suspicions in this direction are really unfounded. He, however, made one discovery not hitherto, we believe, published, which he has kindly permitted us to make known, namely, that the young larva of *arion* after the third moult, will bore into fresh green peas, and live a short time on that pabulum. Now were the larva of *arion* to feed in a fashion at all analagous to that of other species of *Lycaenidae* existing in this country, it is obvious that one or the other of the investigators when searching fort it must have found it. The imago is common in those localities where search has been made, and the larvæ must be at least as common as the imagines, and considering that the search has been made both by day and by night not only on thyme but on the other plants growing in the immediate vicinity, it is absurd to imagine that if these larvæ really feed externally, that they would not have been observed. Taking into consideration these facts, as well as that af the larvæ burrowing into fresh peas, one is forced to the conclusion that the larva of *arion* after its third moult lives in the roots or stems of some plant, and it should not be difficult for those, who have time at their disposal, to solve the mystery. At one period it was suspected that gorse was in some way necessary for the welfare of this insect, as this plant was usually found in the localities in England where *arion* occurred. Thies view, however, must be rejected, as the butterfly is common on dry hillsides in Hungary, where gorse does not grow. The object of these few remarks is to stimulate collectors to endeavour to solve this entomological riddle, which is really of much interest.

Anmerkung der Redaktion. Unsere Leser werden hiermit aufgefordert, sich an der Erforschung der Lebensweise von Lycaena arion zu beteiligen. Für diejenigen, welche der englischen Sprache nicht mächtig sind, möchte ich hier kurz einiges rekapitulieren. Die Eier werden am wilden Tymian abgelegt, der den Raupen bis nach der dritten Häutung als Futterpflanze dient; der Zeitpunkt dieser liegt im Spätsommer oder Frühherbst. Von da an nehmen sie die Pflanze nicht mehr an, sondern sterben lieber.

Nach Mr. Frohawks Ermittlungen überwintert die Raupe und verpuppt sich später in der Erde. Wie andere Lycaena-Raupen ist auch arion myrmekophil, doch ist es sicher ausgeschlossen, daß sie eine längere Spanne Zeit ihres Lebens an das Zusammensein mit Ameisen gebunden ist, weil sie dann in den zahlreich aufgedeckten Nestern gefunden worden wäre, was nicht der Fall ist. Derselbe Forscher hat auch herausgebracht, daß sie sich nach der dritten Häutung in junge frische Erbsen einbohren, an denen sie kurze Zeit leben. Von da an hört unsere Kenntnis ihrer Lebensweise auf. Da nach den Raupen bei Tag und Nacht an den Orten, an denen der Falter häufig fliegt, erfolglos gesucht worden ist, muß man wohl mit Recht annehmen, daß sie von der dritten Häutung an in Wurzeln oder Stengeln leben und es bleibt nun zu erforschen, welches diese Pflanzen sind.

Ich kenne in den Alpen Graubündens eine kleine Waldwiese, auf der der Falter jährlich relativ häufig flog; es gibt dort wohl wilden Thymian in Menge, doch erinnere ich mich nicht, jemals Angehörige der Familie Papilionaceae gesehen zu haben, sodaß wohl in verschiedenen Ländern verschiedene Pflanzen in Betracht kommen dürften. Alle Lepidopterologen sind eingeladen, ihre Meinungen und Erfahrungen über Lycaena arion in der Societas entomologica zu publizieren.

57. 92 Chalcididae (91.1)

Descriptions of New Genera and Species of Chalcididae.

Collected by Mr. John Hewitt, B. A. in Borneo.
By *P. Cameron.*

Dirhinini

Hontalia caeruleiceps, sp. n.

Black, the antennae and the 4 anterior legs, except the coxae, testaceous, the head and thorax densely covered with depressed golden-coppery pubescence; wings hyaline, the base narrowly fulvous, the nervures dark fuscous. ♂, Length 6 mm.

Ocellar region raised, bordered laterally by a distinct keel. Frontal incision bordered by a distinct keel on the sides, apex and base, this keel being continued round the outer apical half of the lobe and also round the cheeks. The head is reticulated, more strongly on the outer side of the vertex than elsewhere. Pro- and mesothorax rather strongly punctured, the punctures round and clearly separated; the base of the mesonotum smooth, bare. Metanotum flat, not quite so long as the mesonotum and scutellum united, its centre with an elongated area, with the basal half roundly dilated; smooth, bare; the outer side at the base triangularly dilated; the lower edge at the base projecting into a conspicuous, slightly oblique triangular tooth; on the sides of the apex above are 2 oblique keels; the apex in the centre smooth, raised, rounded at the base. Mesopleurae broadly depressed, striated. Metapleurae closely strongly reticulated, the apex stoutly margined. Basal segment of abdomen almost twice longer than wide, of equal width, the sides and centre bounded by stout keels. The base of the 2nd segment is closely, rather strongly striated in the middle; the rest of the abdomen bare, smooth and shining.

Chalcitellini.

Anacryptus clavipes sp. nov.

Dark rufous, the front broadly, the greater part of the abdomen above and the greater part of the hind coxae and femora, black; the mesonotum and scutellum in the centre darker, more coppery coloured than the sides, which have brassy tints; shining, the wings almost hyaline, the nervures black. ♀, Length, 3,5 mm.

Head, seen from the front, triangular. rather strongly punctured, the occiput more strongly than the rest, the middle of the front finely, closely, punctured, the lower two-thirds furrowed in the centre, the furrow widest below, finely, closely, tranversely striated. Malar space distinctly longer than the eyes, which are prominent. Basal slope of pronotum finely, closely punctured, except for a small smooth space in the middle, below the rest somewhat strongly punctured, the punctures clearly separated; the mesonotum and scutellum as strongly but not so closely punctured; the punctures on the latter deeper and larger than on the former. Metanotum in the middle finely closely punctured, the sides more strongly and irregularly punctured, than the centre, which has a closed area, the keels of which roundly curve towards the base and apex, are bordered by stout keels, below by a crenulated furrow; the base is strongly punctured; the mesopleurae for the greater part smooth; the base irregularly crenulated; the propleurae somewhat strongly punctured. Parapsidal furrows deep, distinct, irregularly crenulated. Tegulae smooth, the sides below projecting. There is a stout keel on the top and middle of the sides of the abdominal petiole; their lower part is furrowed, the rest of the abdomen is smooth and shining; the base projects straight down from the petiole. Legscovered with a white pile, the 4 anterior smooth, the hinder punctured, the coxae more strongly thau the rest, the tibiae more weakly than the femora.

As this may not be an Anacryptus I give a generic description of the species. Kirby states that the hind tibiae have a tooth near the base, no tooth is shown on them in his figure of the hind legs (Journ. Linn. Soc., XVII, Pl.111 figs. 8 and 9); Walker in his description of the type (impulsator from Celebes) states that there is a tooth. The genus belongs to Ashmead's Tribe Chalcitellini.

(to be continued)

Entomologische Neuigkeiten.

Zu den natürlichen Bundesgenossen im Kampf gegen die lästigen Aphiden zählen in erster Linie die Coccinella-Arten. Vicia faba — die Pferdebohne — wird meist sehr stark von den Schädlingen heimgesucht; aber wo sie gebaut wird, stellen sich auch die Marienkäferchen in Menge ein, sodaß diese Tatsache schon praktisch verwertet wird, indem man Pferdebohnen zwischen in mit Aphiden bedeckten Obstbäumen pflanzt, sicher, daß dadurch die Käferchen angezogen und ihre Arbeit als Bundesgenossen ausführen werden. Im Bezirksamt Dinkelsbühl sind im Spätherbst in Obstplantagen am Fuße der Bäume zwischen Baumpfahl und Stamm die Coccinella septempunctata zu tausenden angetroffen worden; gleich Bienenschwärmen hatten sie sich angesammelt. In der ganzen Gegend hat sich der Anbau der Vicia faba im land-