Drei *Ontholestes tessellatus* delektierten sich auf jenem, was in seinem dunklen Drange jemand an einsamer Stelle deponierte. Hier bemerkte ich, daß ich mich „vergangen" hatte, was mir insoferne zum Heile gereichte, als ich unter einem Steine einen prächtig gezeichneten *Plinthus Megerlei*, jetzt eine Zierde meiner Sammlung, fand.

Zu den größten Seltenheiten, die dieser Berg birgt, gehört aber ein, von meinem Käferfreunde Herrn Ritter v. Gspann in einem Mäusegange erbeuteter und mir freundlichst überlassener *Leptinus testaceus*, den man selbst in den größten Coleopterenhandlungen vergebens suchen wird.

Als ich wieder nach Steinbrück zurückkam, erfuhr ich bereits, daß ein Serbe allein den verruchten Mord am Thronfolgerpaare verübt hat, wobei ich mir dachte, daß es endlich an der Zeit wäre, den Ränken der Serben ein Ende zu machen — und wie bald darnach wurde der Rachezug unternommen. — Gebe der Allmächtige, daß er glückt.

57.68 Chrysomelidae

Parasitische Laboulbeniaceen auf Chrysomeliden.

Laboulbeniaceae				Chrysomelidae
Ceraiomyces chaetocnemae			Thaxt.	Chaetocnema minuta Mels.
—	—	—	—	Epitrix convexa Jac.
—	—	—	—	— lucidula Har.
—	dislocatus		—	Chaetocnema minuta Mels.
—	epitricis		—	Epitrix convexa Jac.
—	minisculus		—	Chaetocnema nana Jac.
—	nisotrae		—	Nysotia chapuisi Jac.
—	obesus		—	Epitrix convexa Jac.
—	trinidadensis		—	— — —
Dimeromyces aulacophorae			—	Aulacophora postica Chap.
—	hermaeophagae		—	Hermaeophaga insularis Jac.
—	homophoetae		—	Homophoeta aequinoctialis Linn.
—	longitarsi		—	Aphthona deyrollei Baly
—	—	—	—	Longitarsus subcinctus Har.
—	—	—	—	— testaceus Mels.
Laboulbenia arietina			—	Dysonycha austriaca Schf.
—	—	—	—	— recticollis Jac.
—	armata		—	Oedionychus sublineatus Jac.
—	braziliensis		—	Oedionychus sp.
—	bruchi		Speg.	Lema dimidiaticornis
—	—	—	—	— gracilis Jac.
—	—	—	—	— sallei —
—	cristatella		Thaxt.	Asphaera siebersii Ill.
—	—	—	—	Haltica scutellata Oliv.
—	—	—	—	Lactica nigriceps Boh.
—	diabroticae		—	Diabrotica fairmairei Baly
—	dysonichae		Speg.	Disonycha austriaca Schf.
—	—	—	—	— figurata Jac.
—	fuliginosa		Thaxt.	Haltica amethystina Oliv.
—	—	—	—	— jamaicensis Fab.
—	—	—	—	— plebeja Oliv.
—	funebris		—	— sp.
—	halticae		—	— —
—	—	—	—	Systena deyrollei Boh.
—	hermaeophagae		—	Hermaeophaga sp.
—	homophoeota		Speg.	Asphaera elegantissima Schf.
—	—	—	—	— nobiliata Fab.
—	—	—	—	— siebersii Ill.
—	—	—	—	— transversofasciata Jac.
—	—	—	—	Disonycha recticollis Jac.
—	—	—	—	Homophoeota aequinoctialis Linn.
—	—	—	—	6-guttata Say
—	—	—	—	Lactica scutellaris Oliv.
—	—	—	—	Monocesta atricornis Ckl.
—	—	—	—	Oedionychus sublineata Jac.
—	—	—	—	Psylliodes sp.
—	—	—	—	Systena basalis Jac.
—	—	—	—	— 5-littera Linn.
—	—	hottentottae	Thaxt.	Lema hottentotta Lac.
—	idiostoma		—	Haltica jamaicensis Fab.
—	manobiae		—	Manobia abdominalis Jac.
—	monocestae		—	Monocesta atricornis Ckl.
—	nodostomae		—	Nodostoma sp.
—	oedionychi		—	Oedionychus sp.
—	partita		—	Nisotra chapuisi Jac.
—	—	—	—	— dilecta Dej.
—	papuana		—	Lema sp.
—	philippina		—	Rhembastus sp.
—	podontiae		—	Podontia lutea Oliv.
—	—	—		— 14-punctata Linn.
—	rhinoceralis		—	Lema gracilis Jac.

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57. 64 Lepidiota: 15

Descriptions of the Stages of the Scara baeid *Lepidiota albohirtum* Waterhouse.

By A. A. *Girault*, Washington.

Stadium II.

Color the same but the distal third or more of the mandibles is black.

Stigmata the same.

Greatest length, 30 mm; greatest width, 6.50 mm; length in natural position, 13 mm; thickness, 20 mm; greatest width of head, 5.35 mm.

Head the same but epicranium including its sclerite without visible sculpture; clypeus faintly alutaceous.

Antennae with the appendix only about a fourth the length of the distal antennal joint.

Mandibles [1]) the same but the seeondary ridge now in the lateral aspect and dorsd at the base of the retinaculum there is a clump of minute, soft setae not in rows or a row.

Latero-proximal half of mandible nearly smooth. Groove between secondary and median ridges more distinct.

Maxillae the same, also the labium.

Legs with the hind femur somewhat less than

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[1]) In III the penicellus of the right mandible is directed procimed from the side of first and largest tooth of the retinaculum as seen from dorsad; the left mandible is as described under III; here the largest „tooth" of the retinaculum is distad.

twice the length of the cephalic one, the hind tarsus subequal to the hind femur or somewhat longer.

Abdomen with segment 9 somewhat longer in proportion to the others.

Clothing the same but setae around edge of labrum all subequal and like cyelasnes; the setae in the cross row near caudal margin of labrum are minute; there are only two unequal setae between mandibles and antennae. Abdominal and thoracic clothing about the same but the setae are proportionally smaller. The path on anal segment ventrad is slenderer, about five and a half times longer than wide and the number of delimiting teeth are from 24—26.

Stadium I.

Color the same; as in stage II; dorsal ridge of mandible not so black proximad. Three white spots on distal antennal joint.

Stigmata absent, blind; peritremes small, round to oval, those of the thorax long, elliptical, closed but the opening indicated in the same positions, the surface densely scaly; peritremes of the caudal three or four pairs partly open, the whole resembling a depula or hollowed blastula of an embryo.

Greatest length, 18.0 mm; greatest width, 3.30 mm; length in natural position, 6 mm; thickness, 3.75 mm; greatest width of head, 2.90 mm.

Head the same; labrum somewhat smoother, the clypeus smooth or nearly. Joint 2 of antenna only somewhat longer than 2, 4 a little conical at tip. Appendix about a sixth the length of joint 4. Joint 2 about two and a half times longer than wide at apex. Under low power microscope, clypeus and cephalic part of epicranial sclerite shagreened. Mandibles the same but the clothing on both mandibles at base (mesad, really) of middle of retinaculum is not reduced in size.

Shieds of legs not colored, not differentiated. Tibiae subequal. Abdomen somewhat over thrice the length of the thorax.

Clothing as in II but the row across near caudal margin of labrum absent; only two long setae along cephalic margin of epicranial sclerite, one on each side of the meson.

The Pupa.

Form ovate, convex above, flat below, narrower caudad. Length variable; 33.0 mm average. Greatest width (across caudal thorax), 15.0 mm. Body naked, without sculpture but in dried pupae the dorsum of segment 7 is longitudinally striate probably due to transverse wrinkling.

Color white upon pupation, gradually changing to pale yellowish brown and just before pupation black. Antennae in ventral view not visible in younger pupae except as a broad exfoliation between the eye and the maxillary palpus; this incloses both the antennae and mandible; in pupae near the change, the antennae are more or less clearly delimited for their entire length along the ventrolateral edge of this part which is separated rather broadly from the eye, extends beyond the latter but does not reach the cephalic tibia; its apex bears more or less distinct, longitudinal sulci and it narrows at base. The articulation of antennae is not distinct.

Elytra rather large, curving over the side of the thorax and extending alongside the middle tibia and tarsus but not reaching tip of latter; their apex is blunt, conspicuous in ventral aspect. They reach the third abdominal segment. Their lateral margins are rimmed and the surface bears transverse wrinkles, not visible in lateral aspect; in dorsal aspect their base is conspicuous. The tips of the wings (ventral aspect) project a short distance from the disto-caudal end of the elytra.

Stigmata visible on segments 2—6 of abdomen only, a little dorsad of the midlateral line; rounded-oval, open; closed and subobsolete on 5 and 6; indicated on the dorsal aspect of the lateral rim of segments 7 and 8. Visible obliquely in dorsal aspect.

Clothing absent.

Dorsal view. Upper part of head visible, also the caudal knees a little, just caudad of elytra and ventrad of an edge of the wing which shows distinctly. The other knees are barely visible together between the elytra and the prothorax.

Prothorax wider than long (dorsad), its lateral margins with distinct rims, margined cephalad and caudad (more distinctly) and divided by a median suture. The dorsal surface is convex and glabrous, transversely wrinkled cephalo-laterad.

Mesothorax triangular, about half the width of the pronotum, with the median suture, its apex raised and terminating in a pair of swollen lobes not deeply divided. The median suture bears along its length cross-striae which are distinctly longer than those on pronotum and metathorax. The striae also occur frequently in the corners of all thoracic segments. Apex of triangle caudad.

Metathorax nearly as large as the prothorax but distinctly less wide, its cephalic margins obliqued cephalo-laterad; also its lateral margin obliqued caudo-laterad, curved, the caudal margin nearly straight. Thorax sloping distad to apex, then curved dorsad.

Abdomen widest at segments 2 and 3, segment 1 flat but with a transverse, emarginate ridge distad of middle; segments 2—6 very strongly ridged transversely, the following segments flat. On segment 2—6 the strong, erect ridges dorsal are linear but are abruptly folded over on to the venter ventrad and thus flattened. Segments 7—9 rimmed laterad, 9 with two median carinae somewhat separated, ventrad the anus distinctly protuberant. Cremaster a fork consisting of a pair of short, tumid, diverging projections armed at tip with a short, stout thorn like spine. Ventrad segments, and 2 hidden, 3—6 each with a central transverse-crescentic scar.

Ventral view. The head has a cephalic aspect. The maxillary palpi project stiffly from between mandibles and maxillae as rather long stout, blunt rods sometimes with the apex lying upon the base of cephalic tarsus but usually above it. They usually bear transverse incisions and the segmentation is rudely indicated as being of four pieces of which the third is wider than long (not always dis-

tinct). Labial palpi connate, distinct, thick. The projecting maxillary palpi, the legs and the elytra are prominent.

Legs more or less free (cephalic and caudal tibiae and tarsi). Cephalic femur mostly hidden by the tibia; cephalic tarsi reaching a little beyond base of middle tarsi; the knees of the first two pairs of legs close together but often one is more advanced than the other. Base of middle femur visible; middle tibia and tarsi lying alongside elytron but the tip of the tarsus is free. The tips of the tarsi of the first two pairs of legs just approach each other; of the caudal legs, the tarsi cross one another more or less (sometimes crossed, at others only partly so). Caudal femur hidden by the elytron, the caudal tibia lying alongside of the wing (distad), the elytra and wing separating the first two pairs of legs from the caudal pair. The caudal tarsi project ventrad.

The abdomen ventrad is about the same as dorsad but the protuberant anus is conspicuous and the ridges are flat as noted. The distal abdomen is inclined dorsad at tip.

Formed in large earthen cells at varying depths in the soil. The pupa lies upon its dorsal side and is free of the larval cast which is shrivelled.

Literature Refered to.

1904. Dimmock, George and Frederick Knab. Bulletin Nr. 1, Springfield (Massachusetts) Museum of Natural History, 55 pp., 4 text-figures, 4 plates.

Note of Emendation.

It is now quite obvious to me that I have misidentified the leg regions. The larval leg consists of a long coxa, a subolsolete, small trochanter, separated from the coxa merely by a longitudinally oblique suture, a femur, a tibia and a tarsus. In the above descriptions, the femur equals the coxa, the tibia the femur, the two joints of the tarsus, tibia and tarsus.

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57 . 87 Lymantria: 15

Eine Zucht der Kreuzung des Schwammspinners.

Von *Franz Bandermann.*

Im Mai des Jahres 1914 erhielt ich eine Anzahl Räupchen der Kreuzung *Lymantria japonica* Motsch. ♂ und *Lymantria dispar* L. ♀. Sie wuchsen prächtig heran und am 8. Juni hatte ich bereits 14 Puppen. Die Raupen sind sehr verschieden in Farbe und Zeichnung; unsere deutsche Art ist heller, die japanische dagegen weist seitlich eine gelbliche Seitenlinie auf. Was die Größe anbelangt, sind die Japaner meist etwas voluminöser, ich hatte Tiere von 92 mm Länge dabei. Als Futter diente ausschließlich Eiche, bis zur Verpuppung; nach 4—5 wöchiger Puppenruhe schlüpften die ersten Falter, am 10. Juli 2 ♂♂, 1 ♀; am 29. Juli war alles ausgeschlüpft. Wenn ich die Färbungsunterschiede dieser Kreuzung beschreiben soll, kann ich nur sagen, daß einige Männchen nahezu schwarz sind, ohne hellen Schein und ohne Wellenlinie, einige dagegen haben breites, helles Mittelfeld der Vorderflügel und schwarzen Außenrand mit schmutzig weißen Fransen. Die ♀♀ differieren gleichfalls in Größe und Zeichnung. Zwei Stücke haben die Riesengröße von 104 mm Flügelspannung (von der einen Spitze zu der anderen gemessen), dann ist da ein Zwerg von nur 48 mm Spannweite. Ein ♀ ist fast weiß ohne jegliche Zeichnung, ein anderes hellbraun, ebenfalls zeichnungslos. So könnte ich noch mehrere abweichende Stücke beschreiben, fürchte aber, zu weitschweifig zu werden. Zwei Paare habe ich zur Kopula benutzt; die Resultate aus den Zuchten und meine Erfahrungen über diese werde ich später bekannt geben.

57: 87 Phalera: 12 . 99.

Asymmetrische Flügelausbildung bei Schmetterlingen.

Von *C. Baumann*, Karlsruhe i. B.

Mit 1 Abbildung.

Die in den letzten Nummern dieser Zeitschrift erschienenen Beiträge zu obigem Thema regten mich dazu an, im folgenden ein Exemplar von *Phalera bucephala* ♀ zu beschreiben, das eine auffallende Asymmetrie der Flügel aufweist.

Wie die Abbildung zeigt, sind die Flügel linkerseits schmäler und etwas kleiner. Am linken Oberflügel laufen Vorder- und Hinterrand beinahe parallel, der Saum und die an den Mondflecken (M) vorbeiziehende Querlinie sind verkürzt und in ihrem Verlauf bedeutend abgeändert. Die Pfeillinien im Bilde, die ungefähr in der Richtung der größten Ausdehnung der Mondflecke gezogen sind, liegen stark asymmetrisch bezüglich der Körperachse. Die schraffierten Felder zeigen die verschiedene Größe und Form korrespondierender Teile auf beiden Flügeln. Der rechte Oberflügel hat 5 deutliche Saumpunkte bzw. -Zacken, der linke nur 3. Soweit ich, ohne die Schuppen zu entfernen, erkennen konnte, scheint auch das Flügelgeäder ungleich entwickelt zu sein. Wenigstens zählte ich auf dem linken Mondfleck eine Ader weniger als auf dem rechten. Alle Flügel sind wie bei normalen Tieren glatt; die Beschuppung ist überall vollständig.

Die Abnormität schlüpfte mir vor einigen Jahren aus der Puppe.