Zunlazist, W1 19 (1861)

On each side a row of slanting white streaks, forming the subdorsal lines. Belly whitish, with two or three brown dots on each segment. Feeds on Pinus sylvestris, in March, April and May. Full fed the latter month. Pupa in an earthen cocoon, Uniform bright yellowish red. Centre of wing-cases rather darker than rest of the body. Abdomen tapering. Antennæ strongly marked in serrated lines. Abdominal divisions blackish. Lively; when touched has a peculiar quivering motion. -H. Harpur Crewe.

Description of the Larva of Xylina rhizolitha. -Ground-colour pale bluish green. Central dorsal line white, slender, interrupted and very indistinct. Subdorsal lines yellowish white. Central dorsal line bordered on each segment by two white tubercles. Back and sides marbled with white, spotted minutely with white speeks and tubercles, and sparingly strewed with white hairs. Belly smooth. Head green. Feeds on oak. Full fed middle of July. Pupa red, in a rather closely-spun earthen cocoon. -Id.

Description of the Larva of Cidaria prunata. - Long, tapering gradually towards the head. Ground-colour greenish gray. Down the centre of the back a series of purplish pyramid-shaped or triangular blotches darker at the sides, and becoming much curtailed in size on the anterior and posterior segments. On each dorsal segment four small white tubercles. Post-capital segment slightly enlarged and encircled by a black or purplish collar. Belly more or less marbled with dusky purple. Central ventral line interrupted, purplish, edged with vellow. Belly and sides studded with white tubercles. Bred from eggs laid in August; hatched the end of March and heginning of April. Fed on gooseberry. Full fed the middle of May. Pupa enclosed in a very slight web between leaves, long, thin, and tapering very considerably towards the abdominal tip. Ground-colour yellowish gray. Thorax much curtailed, bordered with purplish black. Central dersal line distinct, purplish black, crossed on the thorax by two short transverse lines of the same colour. Wing-cases and abdomen spotted and streaked with purplish black. Central ventral line purplish black, broader on the abdomen than between wing-cases .- Id.

Description of the Larva of Larentia multistrigaria. - Ground-colour pinkish or vellowish gray. Central dorsal line blackish. Subdorsal line slender and indistinct, pale purplish brown, thicker at the segmental divisions. Spiracles and spiracular line purplish. Between the latter and the subdorsal line a waved yellowish line, with dusky edges. Segmental divisions pinkish. Belly flesh-coloured. Central ventral line broad, yellowish, having on each side a row of purplish spots. Back and belly more or less minutely spotted with purplish brown. These larvæ were reared from eggs kindly sent me by Messrs. Cooper and Holyday. They fed on Galium aparine. Galium saxatile is, I believe, the proper food-plant, but of this I had none at hand-They were full fed from the beginning to middle of June. Pupa red, in a slight carthen cocoon.-Id.



Occurrence of Dianthacia capsophila in Ireland. When collecting on the coast near Dublin, last July, I took several specimens of a Noctua which puzzled me. I judged it to be a variety of a common species, but have lately ascertained from Mr. Doubleday that it is Dianthœcia capsophila, an alpine species, and rare on the Continent. This species is intermediate between Dianthæcia carpophaga

and D. capsincola, and about the size of the former. - C. G. Barrett; Dublin, November 20, 1869.

Determination of Philonthus prolixus, a Brachelytron new to the British Fauna.-I have within the fast few days determined a Brachelytrous insect, which, if I am not mistaken, is new to our fauna.

PHILONTHUS PROLINUS, Er.

It is most nearly allied to P. procerulus, Grav., and is easily distinguished from P. signaticornis by the antennæ not being pale at the apex; from P. villosulus by the antenna not being entirely pale. It belongs to Erichson's 8th section, with the sides of the thotax thickly punctate, and differs from P. procedulus in being rather larger and by ader. The antennæ are considerably longer, and darker towards the apex. The head is more oblong. The clytra are considerably wider, both absolutely and in proportion to the thorax: they are more distinctly and sparingly punctate, and instead of having merely the apical margins rufo-testaceous this colour extends for a considerable distance along them, in one of my specimens even beyond the middle, gradually passing into a dark piceous. I have taken three specimens at Cowley, all in July, one of them in 1858, the other two the present summer. I have also seen one specimen in the possession of my friend Mr. Rye. - John A. Power; 52, Burton Crescent, November 19, 1860.

Capture of Mycetophagus 4-guttatus. - During the present week I have been fortenate enough to capture seventeen specimens of the rare Mycetophagus 4-guttatus, Miller, of which I believe very few examples are known. They were lurking in a beap of o'd pea-haulm, and had manifestly been bred there, for one of them is perfeetly immature, and had not attained its proper markings. I have no doubt that more might have been taken; but it was such bitterly cold work handling the wet basim, that after a hunt of about an hour and a half I was quite beaten, and glad to give up the search.-Id.

Beetling at the Cape and in Java. By ARTHUR ADAMS, Esq., F.L.S.

Beetle Hunting at the Cape.—We were at the Cape during the whole of the month of April, and we found the weather fine but somewhat stormy. As you wish to know what sport there is for the coleopterist at the Cape I have much pleasure in sketching for you my experience of three insect days.

On landing almost the first beetle you see is Trogosita mauritanica, in passing through the dockyard, which is brought over in the sugarbage from the Mauritius. We just look in at Mrs. Green's to drink a glass of ale and chaff the dusky maids, and having purchased some grapes of Rachel, the pretty fruiterer, we sally forth rejoicing.

This first day we are fascinated by the flowers on the glorious Simonsberg, and plunge at once among the Proteas, where, in company with the honeysuckers, we discover a store of beetles. In nearly every half-blown blossom we find buried a large green Cetonia, and of proceeding to dissect the flowers we discover at least six other genera, according to the state of the floral envelopes and receptacle. On the leaves of the silver tree and on the various heaths we obtain some Coccinellæ and Chilocori. On this day we make the acquaintance chiefly of the birds, especially of the crow with the white collar, and of the noisy butcher bird. We pick up a small tortoise, and see with a shudder the fatal black form of the sluggish Cape Cobra glide slowly beneath an old root.

Another day and ground beetles are our game. We select the loose stones at the foot of the mountains, where, in hot and sandy places, we take some Anthiæ, some fine large black species and some smaller white-spotted ones. Here also we find Opatrums and other Heteromera; and in the kloffs and gullies and ravines, in the humid neighbourhood of streams and watercourses, Chlænii, Harpali and Carabi turn up and reward our patient assiduity. The Caffir herdsman regards us on this sultry day with especial wonder, for while he watches his buffaloes browse, crouched motionless under the shadiest bush he can find, lo! we are toiling in the sun, turning over stones, and after all finding nothing to eat! The stragglers we met with in this day's cruise are some Cucujus-like customers and Anobiums, under the bark of a hollow tree near the pretty cottage on the hill-side, where we gather delicious mushrooms, we secure a Colymbetes in a cattle pond, detect a Lagria and a Copris promenading a sheep-walk, and by the sides of the sandy road, which is much used by buffaloes, a large black Ateuchus is observed shoving along balls of dung with his crooked hind legs.

On the third day we are bound for Miller's Point, along the coast, and our venture is carrion beetles. We pursue an uneven course, up sand hills and down sand dales, until a boulder covered with the trailing stems of the yellow Mesembryanthemum arrests our eye. The green carpet is torn off from the surface of the stone. Out run the Staphs, and down drop the scorpious, while the nimble yellow centipedes vanish mysteriously with that unpleasant wriggling motion peculiar to Myriapods and Ophidians.

About two miles to the left of Simon's town we cross a plain, where the grass struggles for existence with the sand, and where the round green gourds of the Colocynth rest upon the ground, like shot strewing the surface of a battle-field; a thousand foot-prints of horses stamped in the moist sand (for the ground is used for breaking in horses) beightens the resemblance. On a sudden a taint in the pure air offends our nostrils, but we know it, and, like the vulture to his carrion meal, we are led by the nose to the carcase of a sheep. Placing our nobility "to windward we capsize the defunct mutton, and Necrothori, Histers and Dermestes reward the bold adventure.

We are now, after walking some little distance, close to Miller's Point, and approach the great flat wild-looking rocks where they haul up captured or stranded whiles by chains and windlasses and strip the bones off the flesh and blubber. All around are stray fragments of the mighty fish-like mammals, and turning over a dorsal vertebra (with effort, for it is a large bone) perchance we secure a Silpha, or by a delicate investigation of an unsavoury fathom of "baleen" we possibly appropriate a Cercyon or a Catops.

On our return we descend the sand hills near the sea, and by the "ancient and fish-like smell" we become aware of the vicinity of a station of cleaning and drying fish. We raise a casual board, and behold! the under side is alive with Brachini about an inch long, numbers of them exploding in a most bombadier-like manner, while others are making themselves scarce as fast as their six legs can carry them. The vapour of this large species is very acrid, and leaves a permanent yellow stain on the fingers.

Occurrence of Prognatha in Java. — Now that Staphs, once much abused and shamefully neglected, are become fashionable among beetles, I know I shall be commended if I record the capture of a species of Prognatha (a very singular genus of a very singular group) in the forests of Java, under precisely similar circumstances as those attending the capture of P. quadricornis in England.

In that dear country from which, alas! I have been these four years banished, I remember taking the insect in the good old days when Dr. Power, E. Shepherd, my brother Henry and myself used to trespass on the pheasant preserves and haunt the green bye-lanes of Southern Hampshire, not without exciting suspicion in the minds of certain gentry in velveteen shooting-coats that we were either vagrants, poachers or incendiaries. Seated on the trunk of a noble elm whose head had recently submitted to the axe, we idly peel off the Scolytuscaten bark, where, lying "perdu," we discover Prognatha quadricornis. By the way, should my observations anent Prognatha or any other "small heast" be considered neither very succinct nor much to the point, but, on the contrary, extremely rambling and incoherent, the failing I would suggest might charitably be ascribed to a sailor's provided love of "spinning long yarns."

To return, however, to Java, if not to Prognatha. We are watering at Mew Bay, near the entrance to the Straits of Sunda. A beautiful little cascade falls down a rock into the sea, under the cool shade of dark-leaved trees, where the water-casks are filled without let or hindrance. There is a legend among the sailors of a rhinoceros having charged a party watering here some time previously, which exciting incident, if ever it occurred, lends an additional charm to the spot in the eyes of these danger-loving sons of the sea. In sober truth the ground is literally ploughed up by the tracks of these huge unwieldy Pachyderms.

Instead of landing at the watering-place we prefer making a little detour through the forest, at no great distance from the shore. Dead, hoary, lichen-covered, fern-tufted trunks lie prostrate in our path, and great, green, orchid-hung branches overshadow the snow-white coral strand which gleams below. Our progress at first is slow and difficult, but as we go we hunt. The first fallen tree we turn over discovers a slender green snake with a turned-up pointed nose, and which said Ophidian, being active and vigilant, very naturally makes his escape. The next fern-grown trunk exhibits two ugly black scorpions, of a formidable size, affectionately coiled round a numerous progeny. With cautious care, for we suspect their venom to be potent, we pass a running noose round their knotted tails, and secure the parents of this interesting brood by suspending them to a convenient twig. As for the little ones it is a second "Massacre of the Innocents;" every tender scorpion is mercilessly butchered. And talking of scorpions reminds me that I have at times induced "parties" to believe I possessed the power of taming these most antipathetical Arachnidans and their equally respected Myriapodous relatives, the Centipedes. The black art of the mystery-man, however, simply consists in surreptitiously snipping off the tip of Scorpio's sting and the hooks of fell Scolopendra's jaws with a pair of seissors. Deprived of the power to penetrate the skin, these noxious insects are then permitted to enjoy undisturbed a ramble over the face and hands of the exhibitor. At Pratas' Island, however, the conjuror himself is actually stung by a small scorpion, and he calculates the pain to be about equal to the sting of an irate British wasp, with which of course he has been acquainted both as man and boy. Next we come to a promising dead tree covered with Boleti, eating which we find Mycetophagi of goodly size, and of a black and red pattern.

Stripping off a portion of the loose and partially detached bark, out runs a little dusky, splay-footed, flat-bellied gecko, who is instantly

a prisoner, not, however, without the loss of his tail; a couple ef sellow centipedes follow his example, drop on the ground, and vanish in a most desperate hurry; numerous small Juli are coiled up in the rotten wood, and under damp close-laid masses of bark are the fattened bodies of the Prognathæ; they are deep chesnut-brown, and smewhat larger than the European species. Small trickling rivulets permeate the undergrowth in this wild jungle-corner of Java. Stooping d wn to take a drink at one of these (for the thermometer here stands 2: 90° in the shade) I start. Robinson Crusoe when he saw the "print a man's foot in the sand" could not have been more completely taken aback. Under my very nose the fresh impress of a tiger's paw is manifest. My outspread hand just covers it. Aware, however, of of the crepuscular habits of these cat-like monsters I am speedily reassured, and the presence of some long-spired Melaniæ in the stream diverts my attention from this ominous trace of the much-dreaded man-slayer. Two villages in the immediate neighbourhood are deserted. having been recently desolated by tigers.

Among the foliage of the trees Nanina citrina is discovered, and under the *debris* and dead twigs a fine spotted species of Pythia (P. pantherina of A. Adams) is found, while pretty silver-marked Cassidæ alight on the sunlit blades of horizontal leaves, and, without ceasing, the loud grating noise of Cicadæ vibrates through the wilderness.

And here I really must relate a ludicrous incident that happened to my friend B——. Anxious to explore the tiger-haunted precincts of one of the deserted villages, he is confronted on his way by a stream. Nothing daunted, however, he plunges in and swims to the opposite bank. Here he finds a smouldering wood fire, which he gaily replenishes, and then hangs up his dripping "inexpressibles" on a stick to dry. In his now somewhat primitive costume he then proceeds to examine with the eye of a hunter the tracks of rhinoceros and other "feræ Naturæ," which, he states, do greatly abound there. Having satisfied even his curiosity, our young friend goes of course to the bank of the stream to reclaim his nether habiliments. Alas! nothing but a burnt shred is visible. No choice remains but to make his way back through the difficult jungle, defiant of scratches, insensible to thorns, and eventually to present himself on board, an object of astonishment to his beloved messmates.

ARTHUR ADAMS.

light upon our proceedings. Eriocheir, defunct and desiccated, shall transport us in imagination to scenes that will linger long in the memory.

On the banks of the Yang-tsze-kiang are tracts of low swampy land haunted by curlews, snipe and plover, where water-buffaloes, attended by groups of noisy Mima-birds, alternately ruminate and wallow in the mire, and which are irreclaimable even by the patient industry of the Chinese husbandman. Scattered over these swampy plains are certain sedgy pools. The bottom is soft mud, and the water, though it looks black, is very clear. The reed, the Iris and the bullrush grow in the water, and fringe the peaty margin. Over their emerald swords and spears often hangs the little bluebacked kingfisher, and up to his knees in water stands watchfully the snow-white padi-bird. Certes, there there are fish in these said ponds, and the waters are peopled with noisy frogs. Some portions of the adjoining ground are pierced like a cullender, and the holes are the work of the crab with a bloody hand (Pachysoma hæmatocheir of De Haan), but as yet there is no trace of he of the hairy hand.

As in England boys take possession of ponds, moorlands and commons, and disport themselves therein, robbing the humble-bee, stoning frogs and troubling the mind of the gamekeeper, so do the urchins of the Flowery Land resort to these oozy pools for profit and recreation. With an artfully-fashioned wicker-basket, narrow at the top and sloping at the sides, the pig-tailed boy advances cautiously into the yielding mud, probes with his toes the overhanging banks, or plunges both his arms beneath the spongy roots. Anon a "something" is adroitly transferred to the basket hung about his neck, which "something" on examination turns out Eriocheir japonicus. He is a crab dark olive and freckled, flat-backed and apathetic, by no means nimble on his pins, nor aggressive with his hirsute claws. Placed on the ground, he shambles along sideways towards the water, never moving in an inland direction, and, when possible, speedily makes himself invisible beneath the soft, black mud. He is rightly placed between Trichopus and Utica, and belongs to the fresh-water members of the Grapsus family. Strolling through the unsavoury purlieus of the village of Woosung, I notice in all the fish-shops long strings of these crabs, which, from their abundance in the market, seem to be admired articles of diet among the poorer Chinese. For half a mace I purchase two strings, each of nine full-grown Eriocheirs.

When I again make the acquaintance of our hairy-handed friend I am in that paradise-island, Tsu-Sima. We watered ship in the bight

of the island. From the summit of the Oo-i-yama, the loftiest contain, runs a tortuous stream; now deep, winding and narrow; wider, and leaping over great flat stones, forming little waterfalls; and finally spreading out into a shallow, stony watercourse, as in such shall with trout for the angler, and stony ledges crowded with Neritary; while under the loose, flat stones, half-buried in the sandy mud, larks Eriocheir japonicus.

Again we meet in Manchuria, and the manner of our meeting is in this wise. We join a "pic-nic" to the Lake. There is Wilford of the "seven-league boots," vasculum on back, intent on plants; there is, Buckley, fishing-rod in hand, eager for salmon; Sutherland, roughtful, caring for beetles; and the Doctor, renewing his youth in the fellowship of that gay band. At length, fatigued with our preral exertions, for even pleasure sometimes becomes a toil, we lie within upon the sand, under the shade of the hazels that fringe the argin of the Lake. One prepares the soothing pipe; another, prone are the water, takes huge horse-like draughts of the limpid element; and as sailors ashore must always light a fire, the others collect little will keep the inside and larger boughs for the outside. A spark is the line is the single of the fire is then kindled.

A fire with nothing to cook is bad, so we cast about for something them. There are no birds to shoot, although there is a fowling-time, the fishes will not allow themselves to be caught, and for leather we have no appetite. But crabs there are for the seeking. So bare-legged we wade, and in the shallows of the fresh-water Lake capture these desirable Crustaceans, which are no other than Emocheir japonicus. No sooner is a specimen taken than he is cast upon the glowing embers. Biscuit we have, and wild onions grow in the sand around; but "the salt" of course is forgotten. No bootswain's pipe assails our ears, no "bear a hand" is heard. The poise and bustle of the ship is clean forgotten in the calm of nature. Solemn silence reigns upon the Lake; solemn silence reigns in the great oak woods. Serene and undisturbed, in that wild spot we thankfully cook our crabs, and enjoy our frugal meal.

On the rapid Growth of Cirripedes.—The following short note will tend to illustrate the rapid growth of the pedunculated Cirripedes. In 1857 the 'Actæon' sailed from Rio de Janeiro, towing the 'Dove,'

her little steam tender, by two 9-inch hemp hawsers. On the 31st of March we both arrived at the Cape of Good Hope, having been six weeks on the voyage. On our arrival at the Cape the hawsers, which were quite new on starting, were hauled inboard, when they were found covered with barnacles along their whole length. These were nearly all full-grown, and, with the exception of one small white Balanus, were all pedunculated, belonging to the genera Lepas, Scalpellum and Otion. So numerous were they that even when the hawsers were comparatively freed from them they became so offensive, from decaying animal matter, as to require to be washed with Sir W. Burnett's solution, and kept on deck a considerable time before they could be reeled up below.

ARTHUR ADAMS.

Cossus ligniperda in Scotland. — I am so far behind in my knowledge of Scottish Lepidoptera as to be ignorant whether or not the goat-moth has been recorded as a native of Scotland. When in the district of Strath Summet, last September, I lighted upon a well-grown larva of this insect under the bark of a larch log. No perforations of the wood were to be seen, the creature having fed apparently on the inner bark. When observed it had constructed a kind of form, as if intending it for winter quarters. Two or three days afterwards a second larva was picked up crawling upon a wall about a mile and a half distant from the locality of the first specimen. One of them, I see, is still alive; the other is at present out of sight.—Robert Hislop; Blairlodge, Falkirk, November 24, 1860.

Description of the Larva of Epione vespertaria.—The egg is hatched in May. The larva is very lively: when disturbed it falls in the net and feigns death. Varies much in colour when young. When full fed the head is larger than the 2nd segment. Body elongate and twig-like. Colour of the head dark brown; of the body pale reddish brown, with four fine white dorsal lines to the 6th segment; the 6th segment much enlarged, and having a large pale dorsal blotch, with dusky centre, two black dorsal spots and one large lateral black spot, in the centre of which there is a white ring with black centre; upon all the segments, from the 7th to the 13th inclusive, there is a series of lemon-coloured diamond-shaped blotches with dusky centres, and becoming less distinct as they approach the 13th segment; a subdorsal black and white spot on each segment from the 5th to the 13th inclusive; a pale pinkish lateral stripe and a distinct lateral spot on the 11th, 12th and 13th segments. Feeds on Salix phylacifolia (dwarf willow), and is full fed about the first week in July, when it changes to a very lively pupa among the leaves of its food-plant.—W. Prest; 7, Castlegate, York.

Another Description of the Larva of Epione respertaria.— The larva mentioned in the 'Intelligencer' (vol. viii. p. 82) produced, as I anticipated, Epione respertaria. The first (male) image emerged on the 15th of August, and a succession of males and females (the latter, though rarely captured at large, preponderating) continued to appear until the beginning of September,—about a month later than the period of their appearance at large last year. Very few have this year been taken, though their usual

Larva; there is an enlargement of the 5th or 6th segment, the segments anterior larva; there is an enlargement of the 5th or 6th segment, the segments anterior which are of less diameter than those posterior to the enlargement. This gives the brief are prominent by having on it two conspicuous black spots, one on each side. In the larve vary somewhat when full grown, some being nearly black, whilst laters are of a purplish gray, beautifully marbled or mottled at the sides, a paler was n-like mark running along the back. When disturbed the larva drops suddenly, and lies motionless, as though dead, coiled up somewhat in the shape of a fish-hook. The plant upon which the larve were found and fed up it would have been more securate to have called dwarf willow than dwarf sallow; I am not sure, though I helieve it is called Salix phylicæfolia (tea-leaved willow).—J. Birks; York; October 1860.

[I have cited the second description from the 'Intelligencer,' because there is a size that discrepancy between the two.—Edward Newman.]

Description of the Larva of Eupithecia pumilata: Green Variety.—Ground-colour reliabilities a series of pear-shaped spots of the same colour, the latter becoming merged in the central line on the anterior and posterior segments. Subdorsal lines olive, two on each side. Belly pale dirty green, with dusky edges. The spots and lines vary much intensity of colouring, and are sometimes almost entirely wanting, leaving the larva a uniform pale yellowish green. Feeds on Clematis Vitalba, &c.—H. Harpur Crewe; Bosyton-Beauchamp Rectory, November 29, 1860.

Description of the Larva of Camptogramma bilineata. —Yellowish green. Central cersal line dark green, becoming faint on the anterior segments. Subdorsal lines yellowish white, faint. Segmental divisions yellow. Spiracular line yellowish white, word. Back suffused with white, studded with small white tubercles and short hairs. Belly deeper green than back, traversed longitudinally by numerous slender yellow has, and occasionally spotted on each segment with two large dusky purple spots. When young the ground-colour is sometimes reddish drab. Hybernates small, and segment to feed at the beginning of March, on dock, chickweed, &c. Full fed in April. Pupa enclosed in a slight earthen cocoon. Thorax and wing-cases dark olive, the litter rather paler and transparent at the edges. Abdomen mahogany-red.—Id.

Description of the Larva of Herminia barbalis.—Pale reddish brown, rather transparent. Central dorsal line blackish. Whole of back marbled indistinctly with dark resty red, and studded with minute dusky spots. On each side a row of slanting casky stripes. Head dusky red. In appearance resembles in many respects the larva of the Satyrida and Hesperida. My larva were beaten in September, from birch and eak, and did not feed afterwards; they hybernated till March and April, when they fed for about a week on the outer cuticle of the bark of whitethorn and gooseherry. The pupa is enclosed in a slight cocoon of silk and gnawed bark; it is rather long and slender. Thorax and wing-cases deep red, suffused with black. Abdomen rich red, with a black central dorsal line. Ventral junction of wing-cases slightly blackish. Abdominal divisions black. The perfect insect appeared in about a month.—Id.

Description of the Larva of Ellopia fasciaria. — Ground-colour gray. Down the centre of the back a series of ochteous-red blotches, intersected by a central line paler than the ground-colour. Each dorsal segment, with the exception of the anterior enes, ornamented with four reddish tubercles, one pair much smaller than the other.