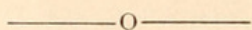


became stage manager of the theatre. After the disbandment of the Wallack company he again went to Australia as a manager for A. M. Palmer's *Little Lord Fauntleroy* organization, returning last year to join Augustin Daly's company. His last appearance was in New York in the part of "Sir Oliver" in *The School for Scandal*.

As an entomologist, Mr. Edwards will best be remembered by his work on the Lepidoptera of California and the Pacific coast, "Studies on North American Aegeridæ," and his last important contribution, "Bibliographical Catalogue of the described Transformations of North American Lepidoptera." He was a member of many scientific societies, and had many friends and correspondents. Three volumes of "Papilio" were edited by him, after which it passed into the hands of Mr. E. M. Aaron. We present a fine portrait of Mr. Edwards, knowing that he had many correspondents that admired and loved him, yet never had the pleasure of seeing his face.



THROUGH THE PINAL MOUNTAINS.

By H. F. WICKHAM, Iowa City, Ia.

A week spent in collecting beetles in the Pinal range of mountains proved so enjoyable that the writer feels tempted to write a short account of one of his trips, in order to try to impart to the readers of ENT. NEWS some small part of the pleasure to be gained in the retrospect. In truth, the life of the professional collector in an unsettled or sparsely inhabited country, does not partake to any great extent of the nature of a picnic, as some would have it—hard work, and plenty of it, is his portion when in the field.

The range mentioned may be found on any good map of Arizona, and lies north of Tucson, that part of it which we collected over being included between the Gila and Salt Rivers. To be more exact, our route lay over an old trail from the Gila River, up the cañon of Mineral Creek for some distance, thence across the foot-hills and over the summit of the range, descending on the other side to the mining town of Globe. This course, taking us through several quite distinctly marked belts of vegetation at various altitudes, proved quite productive of insects.

The start was made on horseback, and for a little while most of the attention had to be directed towards the burros, to whose backs the pack had long been a stranger. But with increased sobriety in the burros came increased opportunity for collecting, and we soon had some very pretty things in the cyanide bottle—the first captures being a set of one of our prettiest Chrysomelids, *Urodera crucifera* Lec. They were taken on the wing, having evidently been disturbed by the irresponsible pack animals brushing against the shrubs by the sides of the narrow trail. A few examples of *Megalostomis subfasciata* Lec. were added to our collections in the same way.

Stopping for a mid-day lunch at an abandoned stamp-mill, where a well yielded water enough for the animals, we made a hasty examination of the vicinity with the following results: *Amara californica* and a *Blapstinus*, in great numbers under leaves of Cottonwood, which had drifted into little hollows, a few *Monocrepidius* and an *Esthesopus* or two under boards; one or two examples of *Mycocoryna lineolata* Stal. on weeds with *Exema conspersa*, and an occasional *Euryscopa* or *Pachybrachys*. Not very encouraging yet, but then there were the foot-hills just in front of us, rising one behind the other, each a little higher than the one before it, and covered, as far as we could see, with bear grass and mescal, the latter with its great clusters of yellow, strong-scented flowers lifted high above our heads. On these we hope to find many an interesting insect, and we are not disappointed. First we see one of those curious weevils, *Zygops seminiveus* resting near the end of a mescal leaf, but he loses hold and rolls down the inclined surface until stopped near the axil by the base of the leaf above. As the leaves are very large, stiff, and armed along the edges with stout, curved spines or thorns, it is a delicate piece of work to extricate an insect without lacerating the hand badly, and possibly my method may prove useful to others who have no cutting tool with them but a jack-knife. Cut off the terminal spine first, then run the knife along the full length of the leaf, far enough from the margin to take all the other spines off clean. Now, treat all the other leaves in the same way and the insects are at your mercy. The *Zygops* may be chased from one leaf to another, for they are rather nimble, until in a spot where they can be grasped with the fingers or forceps. Many other beetles are found near the base of the stalk,

either hiding in the axils of the leaves or burrowing in the stalk itself. Among them are the following: *Philophuga amoena*, *Carpophilus floralis*, *Clerus spinolæ*, *Tragidion* sp., *Mecysmus angustus*, *Hymenorus confertus*, *Hyporhagus gilensis* and *Scyphophorus acupunctatus*, the last named boring in and around the bases of the flower-stalk and leaves. At about this altitude we find *Asida parallela* under dead, uprooted plants. The bear-grass furnishes a few examples of *Megalostomis*, and an occasional *Urodera*.

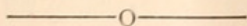
Entering the belt of oak scrub higher up the fauna changes, and the most striking species are small insects living on the leaves, or predaceous; some of them are *Lebia viridis*, *Scymnus marginicollis*, *S. pallens*, *Anthaxia flavimana*, *Pseudebæus bicolor*, *Attalus difficilis*, *Chlamys polycocca*, *Pachybrachys abdominalis*, *Cryptocephalus* n. sp., *Babia tetraspilota*, *Diachus auratus*, *Xanthonia villosula*, *Hemiphrynus intermedius*, *Notoxus bifasciatus*, two or three species of *Apion*, and *Smicronyx seriatus*. These are not all confined exclusively to oak, and some of them probably do not live on it at all, but they may be taken by beating the shrubs, which are in great part some species of oak. On a Leguminous plant (probably a locust) many specimens of a queer little Rhynchophore, *Tachygonus centralis*, were captured. The hind legs are strong and saltatorial, though the insect is not as accomplished a jumper as most of our Halticini. At dusk a *Listrochelus* or two, and a single *Polyphylla*, came flying past and were added to the spoils.

After reaching the pine belt proper, there is still another change in the fauna. Here, under logs and slabs, are to be found *Pterostichus lustrans*, *Calathus dubius*, *Platynus brunneomarginatus*, *Chrysomela auripennis*, *Eleodes carbonaria*, *extricata*, *gentilis*, *Embaphion contusum*, *Cælocnemis punctata*, *Asida macra* and others, while along the little shaded streams *Rhyncheros sanguinipennis* may be seen flying. In and around the piles of slabs left by the lumbermen are numerous lignivorous beetles—*Lucanus mazama*, *Ergates spiculatus*, *Carebara longula*, *Cossonus crenatus*, *Pityophthorus nitidulus*, *Tomicus confusus* and *Hylastes gracilis*. From the small pines and other evergreens a few *Chrysobothris cuprascens* and a *Magdalis* were taken by beating.

Sifting dead leaves in damp places yielded a lot of *Trichopteryx hornii* and *Quedius desertus*. In the little pools were plenty of

Hydroporus vilis and *Agabus lugens*, with occasionally an example of some rarer forms, and on the banks a number of *Bembidium mexicanum*, a not particularly agile species in that climate.

The spot was left with considerable regret, though a scarcity of provisions in the commissary department made this more necessary,—and if the specimens were not so numerous as might be, they were of sufficient interest to more than compensate for any failings in point of numbers.



Notes on *Colias cæsonia*.

By Prof. R. R. ROWLEY, Curryville, Mo.

Although *cæsonia* is the rarest species of *Colias* in Missouri, yet it is fairly common some years, especially in localities where its food-plant is abundant. Toward the latter part of May I have taken numbers of it at red clover blossom in July, and August at thistle and milk-weed blooms, and late in Autumn on the flowers of red and white clover. It is as easily taken as *Philodice* or *Eurytheme*, with both of which it associates at flowers, but unlike the males of them, it never frequents damp places, so far as my observations go.

The flight of this butterfly is not noticeably different from that of our other two species of *Colias*, yet the experienced collector is able to detect it on the wing among numbers of other Coliads, even at a considerable distance; the very broad and intensely black border, outlining the peculiar "dog's head" on the top of the primaries, together with the pointed apex of the same wings, doubtless aiding most in the identification. At rest, the roseate underwinged females of October may be known a hundred yards away in a clover-field. The females of the early and midsummer broods differ from those of late Summer and Autumn in the very pale yellow, almost white, color of the underside of all the wings. In August this pale yellow deepens, and in early September reddish streaks appear along the veins of the hind wings beneath, while in October the entire under surface of the secondaries and the tip of the primaries are heavily streaked or solidly red. The broad outer border of black in some females contains a few, more or less distinct, yellow spots, as we see in the female *Eurytheme* or *Philodice*, but a majority of the individuals entirely want these spots, although the border is much less intense than in the males.



Wickham, H. F. 1891. "Through the Pinal Mountains." *Entomological news, and proceedings of the Entomological Section of the Academy of Natural Sciences of Philadelphia* 2, 130–133.

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