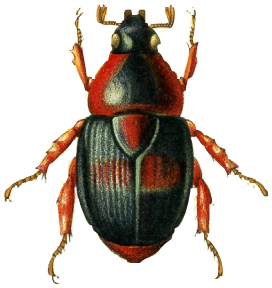

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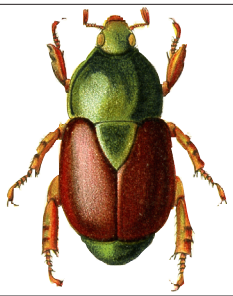

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A Passion for French Rose Chafers: an Exceptional Site for Cetoniinae in Ardèche, France

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Though the tropics, and more particularly the Afrotropical and Oriental regions, boast an exceptional diversity of Cetoniinae rose chafers (or flower/fruit chafers, as you prefer), we should not forget that wonderful creatures belonging to this group also occur in the more temperate latitudes. I find observing these insects in Europe every bit as fascinating as studying their tropical relatives. After reading Olivier Décobert's interesting article in *Scarabs* #35 about the chromatic diversity in *Protaetia*, I was inspired to finish writing the following short note, especially as he also mentioned one of my favourite areas for seeing rose chafers in France (and indeed in the whole of Europe). The area in question is the South of the Département of Ardèche in central southern France, and more especially, the justifiably famous (in French entomological circles at least!) Bois de Païolive. This Sub-Mediterranean region is fundamentally covered in oak vegetation (pubescent oak, *Quercus humilis* and holm oak, *Quercus ilex*) with a Mediterranean maquis covering the open areas. At higher altitudes on the mountainsides, the vegetation tends towards beech (*Fagus sylvatica*) and the beautiful sweet chestnut (*Castanea sativa*) forests, which are such a distinctive sight in southern France. This patchwork of vegetation and relief make for an entomologist's paradise. But it is definitely to the oak forests where we must head if we are intent on seeing cetoniines. It is important to also choose a suitable time of year. June is always a good choice, although July too would be appropriate. Later than this and it will be too dry - our rose chafers

Figure 1: Road through the Bois de Païolive showing distinctive calcareous rock formations and typical predominating oak vegetation, June 2003.

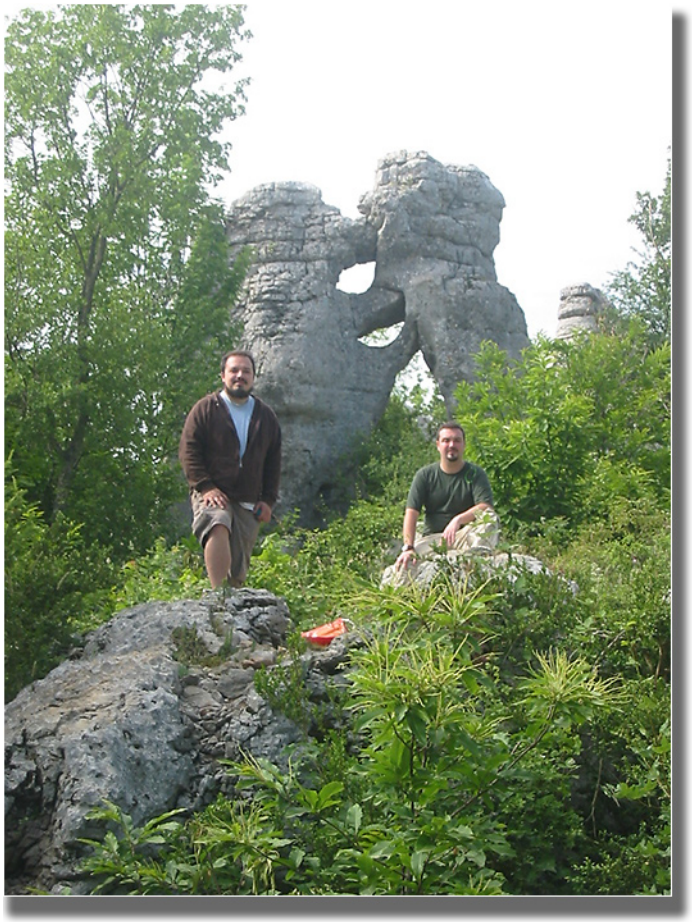

Figure 2: The rocher de l'ours et le lion. One of the stunning animal-like rock formations scattered through the forest. Cetoniinae fly about in profusion around them. In the foreground, the author (left) with his brother and collecting companion of 24 years, James E.D.T. Gillett (right), June 2008.

are then finished for the year here, or at least all but the commonest of species will be. I have had the privilege to visit the Bois de Païolive on four occasions, three visits were in June (2003, 2004, 2008) and one in August (2005). The thin oak trees, whose twisting branches are almost entirely covered in mosses and lichens, grow in profusion amidst a landscape strewn with enormous calcareous rocks and boulders of all shapes and sizes (Figure 1). Many of these rocks take on the appearance of giant petrified animals. Some are named appropriately - l'ours et le lion (Figure 2), l'oiseau and la tortue are all examples. The combination of the undergrowth, the maze of imposing rocks and the many paths carved through the forest, all result to give the Bois de Païolive the impression of being an enormous labyrinth. To add even greater spectacle to the scene, Païolive is bisected by a beautiful river, the Chassezac (a tributary of the Ardèche), whose wide gorge with its steep sides mostly devoid of vegetation are in stark contrast to the luxuriance of the surrounding forest (Figure 3). Its cool waters also offer respite from the heat of the sun to the wary entomologist after a long day trekking in the forest. Modern man has continuously inhabited the area since the Neolithic (approximately 4000-2000B.C.), although certain caves in the area were inhabited by Neanderthals some 40,000 years ago during the Paleolithic. Undoubtedly the abundant wildlife of the area

was a rich source of game for our ancestors. Païolive is now known, apart from its natural beauty, for its small hermitage (l'Ermitage de Saint-Eugène) dating from at least the 12th century and for its popularity as a destination for kayaking and rock climbing. Having set the scene it is time to introduce the cast, in all their multi-coloured flamboyance.

A total of 16 species of Cetoniinae are recorded from Païolive (Aberlenc & Lentenois 2003 and Aberlenc 2008)(Figure 4). These species belong to three tribes and are listed below:

Tribus Cetoniini
Cetonia aurata aurata (Linnaeus, 1758) - the rose chafer (Figures 5 and 6)

Protaetia (*Potosia*) *cuprea bourgini* Ruter, 1967 *(Figure 7)

Protaetia (*Potosia*) *fieberi* Kraatz, 1880 (Figure 8)

Protaetia (*Potosia*) *opaca* (Fabricius, 1787)

Protaetia (*Netocia*) *morio* (Fabricius, 1781) (Figure 9)

Protaetia (*Netocia*) *oblonga* (Gory & Percheron, 1833)

Protaetia (*Eupotosia*) *affinis* (Andersch 1797) (Figure 10)

Protaetia (*Eupotosia*) *mirifica* (Mulsant, 1842) - la grande cétoine bleu (Figures 11 and 12)

Figure 3: The gorges du Chassezac, June 2003.

Figure 4: Cetoniinae from the Bois de Païolive (7 species), all the specimens were seen within a 200-meter radius, June 2008.

Figure 5: *Cetonia aurata aurata* pure green form, June 2008.

Figure 6: *Cetonia aurata aurata* purple form. This species is represented in Païolive by a plethora of colour forms, this purple one being rather common, June 2008.

Protaetia (*Cetonischema*) *aeruginosa* (Drury, 1770) (Figure 13)

Protaetia (*Liocola*) *lugubris* (Herbst, 1789)

Oxythyrea funesta (Poda, 1761)

Tropinota hirta (Poda, 1761)

Tribus Trichiini
Trichius rosaceus (Voët, 1769)

Gnorimus variabilis (Linnaeus, 1758)

Osmoderma eremita (Scopoli, 1763) - the hermit beetle or pique-prune

Tribus Valgini
Valgus hemipterus Scriba, 1790

*The exact status of the subspecies of *Potosia cuprea* present at Païolive is debatable. It could represent a stable hybrid or transitional form between *P. cuprea bourgini* and *P. cuprea olivacea*.

As a measure of just how impressive this list is, in the whole of France (including Corsica) there are 22 species (and an additional 4 subspecies) of Cetoniinae recorded, so finding 72% of these species in one very small locality is quite incredible. I believe the high cetoniine diversity in Païolive is an obvious indicator of the importance of the site for saproxylic insects. Other dead-wood associated beetles found in high abundance and diversity at

the site include rare species of Cerambycidae and Buprestidae as well as the imposing stag beetle (*Lucanus cervus*). It is a joy to still commonly encounter impressive longhorn beetles such as *Cerambyx miles*, *Brachyleptura trisignata* and *Trichoferus pallidus* in the area.

Of the above list of recorded species of Cetoniinae from Païolive, I have been able to personally observe most of them in situ. The exceptions are as follows:

Osmoderma eremita - a very scarce insect with only a few records from Païolive. The species is protected under European law.

Liocola lugubris - relatively rare in the south of France, avoiding Mediterranean habitats and mostly found in moister forests further to the North and West.

Potosia opaca - a mystery this one, perhaps I was never there at the right time of year, it may be more abundant in July. I have seen it commonly on thistles elsewhere in the Mediterranean in June.

The best way to see cetoniines is by using the now well known fruit-baited or wine-baited bottle traps suspended high in the foliage of oaks (Figure 14). My preferred bait is a banana/beer/sugar fermenting mixture. The abundance of cetoniines is quite remarkable and through

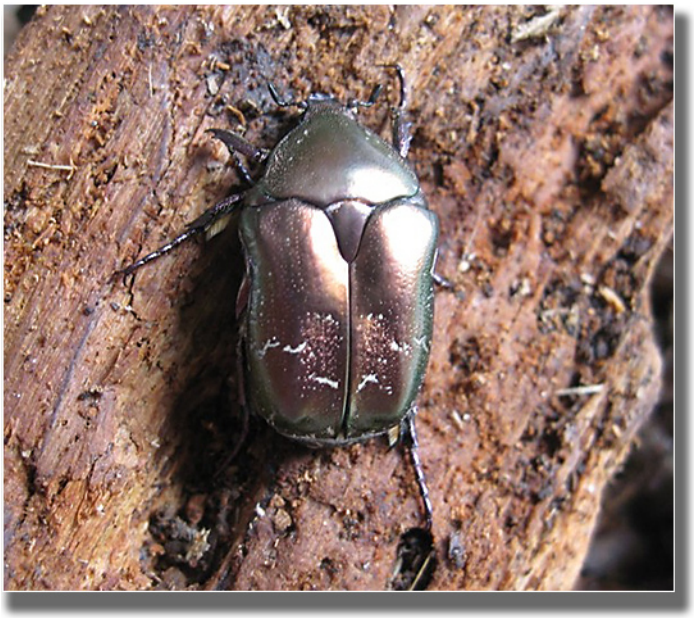

Figure 7: *Protaetia* (*Potosia*) *cuprea bourgini*. Further to the south it is replaced by *P. cuprea olivacea* in the coastal Mediterranean and to the east by *P. cuprea metallica* in the Alps, June 2008.

Photo 8: *Protaetia* (*Potosia*) *fieberi*, a relatively rare species that can be confused with the more common *P. cuprea*, June 2008.

Figure 9: *Protaetia* (*Netocia*) *morio*, a ubiquitous species of the western Mediterranean, June 2008.

Photo 10: *Protaetia* (*Eupotosia*) *affinis*, relatively commonly attracted to fruit bait in the oak forest, June 2008.

the use of the bottle traps (if they are checked often) it is possible to release specimens alive after observation (Figures 15 and 16). It should be noted that some species never, or only exceptionally, will be attracted to the traps. These species can, however, be easily observed feeding on flowers, most notably dog rose (*Rosa canina*) in June, but also on umbellifers and on ground elder (*Aegopodium podagraria*): *Trichius rosaceus*, *Oxythyrea funesta*, *Tropinota hirta*, *Valgus hemipterus*. The rose chafer *Cetonia aurata* and *Netocia morio* also occur commonly on flowers, however it is exceptional to see any of the species of *Protaetia* on flowers in Païolive, although at other localities I have seen *Netocia oblonga* and *Potosia opaca* on thistles (*Onopordon* spp.). Very rarely I have observed *Potosia cuprea bourgini* at the sap flowing from tree wounds and even entering or leaving bees hives, evidently attracted by honey.

There is a definite difference in the relative abundance of the species attracted to the bottle traps. In my experience *Cetonia aurata* and *Netocia morio* are always the most abundant, which is the case through much of the western Mediterranean (though *C. carthami* replaces *C. aurata* in most of the Iberian peninsula) and they can also be seen on flowers and flying in profusion all over Païolive. These two species are followed in abundance by *Netocia oblonga*, *Potosia cuprea bourgini*, *Eupotosia affinis*, *Eupotosia mirifica*, *Potosia fieberi*, *Cetonischema*

aeruginosa, *Gnorimus variabilis*, approximately in that decreasing order. These last three species seem to be particularly difficult to observe and I have only seen a few of each from Païolive, although they could be active in greater numbers later in the summer (in June 2003, 2 additional specimens of *G. variabilis* were seen to be attracted to branches next to the traps but when approached, very quickly took flight - this is a very nervous and active species). In some years most of the species can already be found by mid June if it has been very warm, whereas in other years, if it has been cooler and wetter, some species may not yet be active in mid June. As an example, in mid June 2003 *Netocia oblonga* was extremely abundant, but on the same dates in 2008, the species was not yet active in Païolive (although I found a few just across the Rhône in another superb forest known more specifically for its astounding abundance and diversity of *Carabus* - the Forêt de Saou, Figure 17). During the single trip to Païolive undertaken in August, the only species present were *Cetonia aurata* and *Netocia morio*, both in much reduced numbers compared to June. The whole area was obviously considerably drier than had been the case in June in other years and it seems that cetoniine adult activity significantly drops off during the hottest weeks of the summer. Some species tend to be more abundant deep in the forest (*Eupotosia mirifica*, *E. affinis*, *Cetonischema aeruginosa*),

Figure 11: La grande cétoine bleu *Protaetia* (*Eupotosia*) *mirifica* - the quintessential insect of the Bois de Païolive. It is an extremely localised species and possibly one of the most stunning beetles in the European fauna, June 2008.

Figure 12: *Protaetia* (*Eupotosia*) *mirifica*, June 2008.

Figure 13: *Protaetia* (*Cetonischema*) *aeruginosa*, an apparently rare species at Païolive, June 2008

Figure 14: Banana-baited bottle trap high in the foliage of an oak tree, June 2008.

whereas others may occur in greater numbers on the outskirts of the forest or in more open areas (*Netocia oblonga*) (Figure 18). Therefore placing traps in a variety of micro-habitats is always the best approach when sampling. The only species in Païolive which displays significant chromatic variability is *Cetonia aurata* which occurs in a multitude of single coloured and bicoloured forms, of which an overall purple-violet variety is relatively frequent (Figure 6). However, I have never seen in Païolive any blue or black specimens which can be relatively common in Corsica and in Tuscany. Special note should be made here of the aptly named 'grande cétoine bleue' *Eupotosia mirifica*, a spectacular violet-blue species which finds in the south of Ardèche, its ideal habitat. Indeed the populations of this species in the area are the largest in Western Europe (Tassi et al 1994). Unbelievably, this very large and conspicuously coloured species remained unknown in France until 1975 when it was first recorded from Païolive (Tassi et al 2004)! Considering the species is known with certainty from only 19 localities throughout its range (from Spain to Syria), it is yet further evidence for the important conservation value of the Bois de Païolive. One hopes that *E. mirifica* will become an 'umbrella species' and mascot of sorts for Païolive. It is thought that in addition to the appropriate vegetation and climate of the area, other factors have contributed to the suitability of Païolive for cetoniines. In particular

Species	Fruit Trap/Flowers	Habitat	Rarity	June	Aug.
Cetonia aurata aurata	Traps and flowers	Open and forest	Very common	Yes	Yes
Protaetia (Potosia) cuprea bourgini	Traps only	Mostly forest	Common	Yes	No
Protaetia (Potosia) fieberi	Traps only	Forest	Rare	Yes	No
Protaetia (Netocia) morio	Traps and flowers	Open and forest	Very common	Yes	Yes
Protaetia (Netocia) oblonga	Mostly traps	Mostly open	Common	Yes	No
Protaetia (Eupotosia) affinis	Traps only	Mostly forest	Quite common	Yes	No
Protaetia (Eupotosia) mirifica	Traps only	Forest only	Quite rare	Yes	No
Protaetia (Cetonischema) aeruginosa	Traps only	Forest only	Rare	Yes	No
Oxythyrea funesta	Flowers only	Open and forest	Common	Yes	No
Tropinota hirta	Flowers only	Open and forest	Common	Yes	No
Trichius rosaceus	Flowers only	Open and forest	Quite common	Yes	No
Gnorimus variabili	Traps only	Forest only	Rare	Yes	No
Valgus hemipterus	Flowers only	Open areas	Quite common	Yes	No

Table1: Cetoniinae from the Bois de Païolive with biological notes.

the multitude of crevices and holes found in the rocks that dominate the landscape, by trapping falling leaves and other organic matter, are able to provide important additional suitable habitats where the beetles can undergo their larval development (which would normally be limited to cavities filled with wood mould in trees). These additional replicated 'artificial' tree cavities could perhaps partly explain the elevated abundance of cetoniines in Païolive (Tassi et al 1994). Table 1 summarizes some of the biological information based on my observations in Païolive.

In addition to the Cetoniinae, there is an interesting array of other scarab species (and of course many other beetles and insects) to be found at the site. Scarabaeinae dung beetles are represented by a series of *Onthophagus* species, of which *O. verticicornis* is extremely common under cover of the

Figure 15: Trap containing *P. mirifica*, *C. aurata*, *P. cuprea* and *Cerambyx scopoli* (Cerambycidae), June 2008.

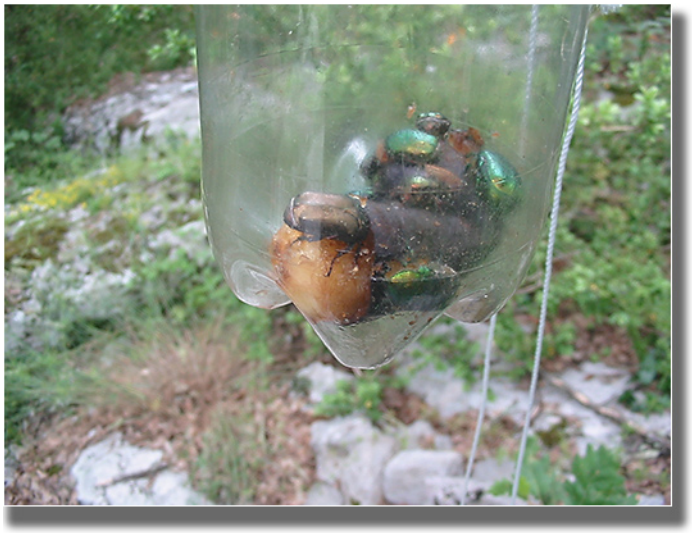

Figure 16: Trap containing *P. aeruginosa*, *P. cuprea* and *C. aurata*, June 2008.

Figure 17: One pitfall trap sample of *Carabus* (Carabidae) from the Forêt de Saou (Drôme, France). Left to right: *C. auratus diensis*, *C. nemoralis lucidus*, *C. monilis saouensis* bronze, blue and bicoloured form *nicodi*, *C. intricatus* and *C. hispanus dromensis*, June 2008. Apologies for failing to resist the temptation of including this non-scarab photo!

forest, with *O. coenobita* and *O. lemur* dominating the open areas. Other species present include *O. furcatus*, *O. grossepunctatus* and *O. ruficapillus*, in addition to *Caccobius schaefferi*. *Sisyphus schaefferi* is also a common sight, usually seen rolling its dung ball grasped between its ungainly long legs. The only geotrupid I have recorded is *Trypocopris vernalis fauveli* - this being the matt black subspecies of the otherwise normally metallic beetle. *Amphimallon ater* is an abundant melolonthine and two species of *Hoplia* are present, usually found on flowers: *H. argentea* and *H. coerulea*. The latter, normally found on vegetation along the banks of streams, has the males covered in stunning sky blue metallic scales and is a truly classic element of the southern French countryside! The sole ruteline I have recorded there is *Anisoplia tempestiva*, which can be seen climbing up grasses and other low vegetation, the small beetles usually coming to notice as I picked marjoram and oregano in the maquis. Finally, as the evening sun sets over the precipitous gorge of the Chassezac, and if one is lucky, a stag beetle (*Lucanus cervus*) or perhaps a European rhinoceros beetle (*Oryctes nasicornis*) may buzz loudly past, attracted to the distant lights of the village at Casteljau. One can then contemplate whether Neolithic man also wondered at the beauty of the flying jewels of Païolive all those years ago.

Without meaning to sound like a tourist representative for the region, there are many additional reasons for visiting the region, including the stunning gorges de l' Ardèche and Vallon Pont d'Arc nearby and the equally impressive Cévennes National Park to the West. Historically interesting is the imposing Roman viaduct at Pont du Gard to the south. The local wine is also excellent and unpretentious and can be sourced cheaply from the neighbouring vineyards at Berrias et Casteljau.

I would like to point out to interested readers wishing to find out more about this precious site the following literature and website addresses:

Association Païolive

http://associationpaiolive.blogspirit.com/tag/entomologie

ABERLENC, Henri-Pierre and LENTENOIS, Philippe. 2003. Les insectes du bois de Païolive. p55-72. In: HOLTHOF, Jean-François and SCHNETZER, Jacques (Eds.). 2003. Païolive. Association Saint-Eugène à Païolive, Les Vans. 320pp.

http://www1.montpellier.inra.fr/CBGP/39%20HPA.pdf

Figure 18: Open area of Sub-Mediterranean maquis, the preferred habitat of species such as *Protaetia* (*Netocia*) *oblonga*, June 2003.

ABERLENC Henri-Pierre. 2008. Les Insectes du Bois de Païolive : premier supplément à l'inventaire. In Les Cahiers de Païolive, 1. p155-167.

http://www1.montpellier.inra.fr/CBGP/2008-67-insectes_paiolive.pdf

TASSI, Franco., ABERLENC Henri-Pierre, RASPLUS, Jean-Yves, CURLETTI, Gianfranco, DUTTO, Moreno, GENSON, Guenaelle and LEMPÉRIÈRE, Guy. 2004. *Eupotosia mirifica*, la grande cétoine bleu, joyau menancé du patrimoine naturel européen. Propositions pour la protection de l'espèce et de ses biotopes. (Coleoptera Cetoniidae Cetoniinae). Lambillionea, CIV, Mars 2004 supplément. 32pp.

Excellent pictoral online key to French Cetoniinae:

http://www.insecte.org/spip.php?article15

Curious Scarabs in the South of France

by Olivier Décobert

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In *Scarabs* N° 28, I wrote about horned scarabs in the North of France, where I live. But I often travel, and especially in the South of my country. Now, I'd like to show a few interesting species which can be found in the South of France.

The first one is *Bubas bubalus* (Olivier). It measures between 13 and 22 mm. I once found this species in April, at Barcarès, on the coast, 15 kilometers from the town of Perpignan. This is a littoral insect in France. A close species is *Bubas bison* (Linné), but I have still not found this scarab in my country. *Bubas bubalus* is not really horned, but has two protuberances on the head (only on the male).

***Bubas bubalus* (Olivier)**

The second scarab is *Scarabaeus semipunctatus* F. Its size is 18 to 27 mm. It is rather common on the South coast of France, easy to recognize because of the punctuation of the pronotum. It is close to the well known *Scarabaeus sacer* L. but this species is rare in France. I often find *Scarabaeus semipunctatus* in April or May, in the dunes of the "Camargue" region.

***Scarabaeus semipunctatus* F.**

The third species is *Bolbelasmus gallicus* (Mulsant) (size 10 to 14 mm). The two others are Scarabaeidae, but here, we have a Geotrupidae. This interesting insect lives in sandy areas, and can be found in the oak or pine forests. Contrary to the two other species, it is not restricted to the proximity of the Mediterranean Sea. Of the four scarabs in this article, it is the only one which eats underground mushrooms, and is not a dung feeder. This specimen was found near the town of Nîmes in April. Many protuberances can be seen on the head and pronotum.

***Bolbelasmus gallicus* (Mulsant)**

***Bolbelasmus gallicus* (Mulsant) (side view)**

To finish, the last scarab is little, 7 to 11 mm, and can also be found in the North of France. Nevertheless, I discovered this specimen in the oriental Pyrenees Mountains, in cow dung. The colour is special because this species is habitually rather yellow-brown. This is *Euoniticellus fulvus* (Goeze). It is a common insect for anybody willing to search in scat (but that seems to be frequent with entomologists!).

***Euoniticellus fulvus* (Goeze)**

As with the Northern horned beetles of France (see *Scarabs* N° 28), this selection of Southern scarabs shows the diversity of shapes (body, head, legs) in this interesting group of insects.

Mediterranean coast with a typical flamingo. The terrain in the background is a good biotope for *Bubas bubalus* and *Scarabaeus semipunctatus*.

Camargue is a region in the South of France that is a good biotope for dung feeders like *Scarabaeus* and *Bubas*.

This picture wass taken in the Pyrenees mountains and is a good biotope for *Euoniticellus fulvus* and many other dung feeders because of the presence of bulls or cows.

In Past Years - XIX - 1977

by Henry F. Howden

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Ottawa is beautiful in the spring, but hoards of black flies and mosquitoes can sometimes lessen the attraction! In mid-May Stewart and Jarmila Peck and Anne and I left for Panama.

We were hosted by Henry Stockwell and his wife while at Balboa in the Canal Zone. Henry also made all the arrangements for us to stay in the Audubon Cabin near Cerro Punta, Chiriqui Province. We spent several days getting supplies, collecting in the Canal Zone and looking over Henry's extensive collection. The next day we drove for eleven hours in Henry's Land Rover to reach the cabin near Cerro Punta. During the drive Henry told us about a break-in that had happened to him. Henry is a medical doctor and he had a package containing a stool sample on his car seat. When his car was broken into, it was the only thing taken. Henry still wishes that he could have seen the face of the person when he opened the package! Stories like that made the time pass rapidly. The cabin (Photo 1) was great and, thanks to Henry, we had no problems the entire time we were in Panama; most unusual as we normally did not escape without having one or two problems when visiting Latin America. As soon as we were unpacked, traps were set in the nearby forest and a Malaise trap appeared near the cabin. The next day we drove to Hartmann's Finca, 2 km north of Santa Clara, where we encountered a swarm of collectors including Brett Ratcliffe, Al Thurman and Dodge Engleman. The competition (Photo 2) was fierce! The afternoon was spent collecting, which included one *Neoathtreus* excavated from an 18 inch burrow. Collecting (Photo 3) was interrupted by hard rain about 5 PM. We ate and before we finished the rain had stopped. Al took us up a nearby hill on a so called track; we needed four wheel drive and chains to get up the hill, so we were very glad he was there. A black light set near the summit of the hill yielded two species of *Chrysina* (I do keep up with name changes sometimes) along with other scarabs; *Anomala* and some ceratocanthids were taken at the same time by beating. We returned

Photo 1: The Audubon cabin near Cerro Punta. Fortunately the roof didn't leak!

to our cabin about 11 PM.

The next three days were spent near the cabin. Stewart and I had discussed the idea of scarabs perching at different heights to find different sizes of dung and decided to try setting out mega- and mini-traps. The mega-traps were baited with 200 mm of feces and the mini-traps with 2 cc of the same bait. Stewart set out the mega-traps and I set out the small ones. We did this both at the cabin and at Hartmann's Finca. The results were that six species came only to the large baits, six came only to the small baits, with fifteen species coming to both (Photo 4). The results of this were published (Peck and Howden) in *Biotropica*, 1984, 16: 235-238.

While collecting was good and we collected several undescribed species of scarabs along with many others, we were plagued by wet weather. Both at the cabin and at Hartmann's we usually ran the black light under some type of shelter. Beetles and other insects came to the light regardless of the weather, the exception being that during very hard rain there was little activity. There were some obvious adaptations to the wet weather; some Orthoptera mimicked lichens (Photo 5), while one Lepidopteran pupa spun an open network of silken strands (Photo 6) so that it would dry out when it was not raining! When it wasn't raining, evening sweeping at dusk was productive, both for *Ochodaeus* and *Onthophagus*. Some of the *Ochodaeus* were taken when their eyes glowed red in our head lights. No *Chrysina* were collected at the cabin, but we did take a new genus of dynastine, latter described by Brett Ratcliffe.

Photo 2: Competition at Hartman's Finca. The person standing in the foreground had something to do with "Team Scarab".

On the seventh of June, Hartmann took us on a back trail to the Costa Rican border (Photo 7) at an elevation of about 4,000 feet. We only collected two ceratocanthids before it started to rain and we returned to the finca. Two *Aesalus* were found in a rotten log and dung traps emptied, before some

Photo 3: One way to dig *Neoathyreus* at Hartman's Finca.

Photo 4: Jarmila, Stewart and Henry Stockwell admiring some of Stewart's art. If you want to know what it was about, ask Stewart.

very wet collectors returned to the cabin at dusk. Our last two days at the cabin were occupied picking up traps, trying to dry out clothing and cursing the rain. Some of the nearby hillsides were planted in potatoes, most of which were washed out and were ruined; the farmers were most unhappy and had a few nasty(?) Spanish words for the weather. Thursday morning, June 9, we managed to stagger out at 5:30 AM and drive back to Balboa, arriving about 5:30 PM.

The next few days we escaped the rain, but it turned HOT. We did some errands, set one mega- and ten mini-traps in Madden Forest in the Canal Zone then left for Colon. There we picked up Henry Hespenheide, Dodge Engleman and Al Thurman; we then went to Santa Rita Ridge, about an hour's drive from Colon. Our lodging was an "A" frame building (Photo 8) with a loft that would sleep as many as there was floor space. In front was a cement patio where our various lights were set. Nearby, I set out ten mini-traps before dark. It was so hot that I spent the night on the patio sleeping a little and checking lights. There were a number of people there, mostly beetle collectors, so the beetles didn't have a chance! I didn't keep a list of everyone and will not try to recall who was present that night. The next day was cool and cloudy and that night the rain found us, so there was not much night collecting. The next morning we collected the cup traps and returned to Balboa. Later that day Stewart picked up the traps in

Madden Forest. We also met Henk Wolda and looked at both his and Henry's collections. All in all a great time, thanks largely to Henry Stockwell's planning and help.

This and several other trips to Panama resulted in a paper on the *Scarabaeinae of Panama* in 1981 by me and Orrey Young (a Post Doc. with me in 1980). The book had to be produced as camera ready copy, so mistakes were corrected by pasting the correction over the incorrect word. Most of the corrections were made without trouble, but at least two fell off and were not caught. I just want to say that Cerro Campana is perhaps 3,000 feet high, not 3,000 meters; also it is the Gorgas Hospital, not the "gorgeous" hospital! It is difficult to be free of gremlins!

Since I have already digressed, I will mention a recent interview of a five-year old on the CBC. It was a music program and the interviewer asked the boy what was his favorite band. He said "The Beetles". As the boy was not old enough to have lived during the height of their popularity, he was asked "Why do you like them?". He said "I like the name". The obvious next question was asked - "Why?". The answer - "Because it is my favorite group of insects"! Anne and I agree.

Photo 5: Orthopteran on tree trunk near Cerro Punta. If looking like a lichen isn't enough, then the spines might deter a collector!

Photo 6: Lepidopteran pupa near Cerro Punta in its wet weather, net-like pupal case.

Photo 7: Henry, Anne, Stewart and Jarmila at the Costa Rican - Panamanian border. For the few not familar with the tropics, the clumps of vegetation are coffee trees.

Photo 8: The "A" frame at Santa Rita Ridge. People in fore ground with big fly swatters!