

## Unknown or little-known large ground beetles from the United Arab Emirates (Coleoptera: Carabidae: Scaritinae, Harpalinae, Platyninae)

by Michael P. T. Gillett

In a recent paper, Felix (2009) illustrated and recorded the occurrence of 70 species of ground beetles (family Carabidae) in the United Arab Emirates, UAE. As the author states, this list is necessarily incomplete, not only because the specimens were mainly collected by light, malaise or water traps, but also because much of the collecting took place in the northern emirates rather than in the larger expanses of Abu Dhabi. There are certainly several tiger beetles (subfamily Cicindelinae) in the UAE that are not included in Felix's work (Weisner, 1993; Gillett, 1995; Weisner, 1996; Weisner, 1998; Cassola *et al.*, 2010). Also missing are three large species of ground beetles that have previously either not been recorded from the UAE or, at least, are but poorly known for the country. These three beetles form the basis of the present note; they belong to three different subfamilies (Lorenz, 2005), two of which are not mentioned in Felix (2009).

### **Scarites (Scallophorites) guineensis Dejean, 1831 (Subfamily Scaritinae)(Figure 1)**

*Scarites guineensis* Dejean, 1831

*Scarites asphaltinus* Klug, 1832

*Scarites nitidus* Chaudoir, 1843

*Scarites boysi* Chaudoir, 1855

*Scarites rocheti* Chaudoir, 1855

*Scarites striatus guineensis* Bänniger, 1938

Material: UAE: 2 ex. Dubai, Jebel Ali, 10m, IV. 1993, Running on beach at night, J.E.D.T. Gillett; 1 ex. Abu Dhabi, near Sweihan, IV.1997, under board, M.P.T.Gillett.

Geographical range: Senegal to Sudan, Ethiopia, Egypt and Arabia



Fig 1. *Scarites guineensis*, UAE: Dubai, Jebel Ali, 34 mm.



Fig 2. *Heteracantha depress*, UAE: Abu Dhabi, Al Ain, Al Masoudi, Al Ain, 17 mm.



Fig 3 *Sphodrus leucophthalmus*, UAE: Abu Dhabi, Ain Al Faydah, 27 mm.

This is a much larger species than the two mentioned by Felix (2009), *S. (Parallelomorphus) subcylindricus* Chaudoir, 1843 and *S. (P.) terricola aethiopicus* Bänninger, 1933, and it belongs to a different subgenus. In the UAE, the species is typically found in tunnels or under debris on sandy beaches; it is sometimes present in numbers at the Jebel Ali locality. However, it also occurs inland in the UAE and it has been recorded elsewhere at altitudes up to 2000 m. Overall, it appears to be relatively rare or at least very local in the UAE, at least in comparison with the two smaller species. However, across its large range, *S. guineensis* has been described as common (Balkenohl, 1994). Nevertheless, only a single specimen from Saudi Arabia was available for his examination and only very few Saudi examples were studied earlier by Basilewsky (1979). Although not indicated above, *S. guineensis* along with about 50 other *Scarites* spp., was also recorded by Andrewes (1929) from several localities in 'British India', but some of these records for *guineensis* are doubtful, especially those from Assam and Poona. This species has been previously recorded from the Abu Dhabi desert by Tigar and Osborne (1999) and without specific details by Gillett and Gillett (2005).

***Heteracantha depressa* Brulle, 1834 (Subfamily Harpalinae)(Figure 2)**

*Heteracantha depressa* Brulle, 1834

Material: UAE: 6 ex. Abu Dhabi, Al Ain, Al Masoudi, 03.III.1995, running in woodland at dusk, M.P.T. Gillett; 2 ex. Dubai, al Lisaili, IV.1998, at lights in service station, M.P.T. Gillett; 1 ex. Abu Dhabi, Sheikh Tahnoon Farm, Sweihan, 17.V. 2003, light trap, M.P.T. Gillett and B. Howarth.  
Geographical range: North Africa, Morocco to Egypt, Israel, Syria and Saudi Arabia.

This is a typical ground beetle of desert areas in N. Africa and Arabia. It is spring-active and spends the daytime hidden below ground to emerge at dusk and actively seek its prey such as grasshoppers and other invertebrates. Although far smaller than *Anthia duodecimguttata* Bonelli, 1831 or *Scarites guineensis*, this species unlike these others, will bite viciously if molested. *H. depressa* has previously recorded from the UAE, but without details (Gillett and Gillett, 2005).

***Sphodrus leucophthalmus* (Linnaeus, 1758) (Subfamily Platyninae)(Figure 3)**

*Carabus leucophthalmus* Linnaeus, 1758  
*Carabus spiniger* Paykull, 1790  
*Carabus obsoletus* P. Rossi, 1790  
*Carabus planus* Fabricius, 1792  
*Sphodrus armeniacus* Oseulati, 1844  
*Sphodrus indus* Chaudoir, 1852  
*Sphodrus siculus* Motschulsky, 1865

Material: UAE: Abu Dhabi: 1 ex. Ain al Faydah 05.XI.1993, pitfall trap in saline soil, M.P.T. Gillett; 1 ex. Near Mirfa, 29.XII.1998, M.P.T. Gillett; 1 ex. Al Ain, Towayya, 19.V.2000 pitfall trap, M.P.T. Gillett  
Geographical range: Virtually all of Europe except extreme north, Canary Islands, Morocco to Egypt, Turkey, Iraq, Syria, Caucasus, Yemen, Saudi Arabia, Afghanistan and India (Uttar Pradesh)

This is a very interesting species with a predominantly Mediterranean distribution and its occurrence in northern Europe, including the British Isles, is considered to have resulted from accidental introductions. Under these circumstances, the beetle is only found indoors in dark and damp situations such as cellars, bake-houses and the like, where it has been recorded as preying on *Blaps* sp. (Coleoptera: Tenebrionidae), but in recent times, it has become extinct or very scarce right across this northern range (Luff, 1998). In its natural range, including the UAE, the beetle is found outdoors and because it is fully winged, it is capable of effective dispersal. Within this natural range, tenebrionid beetles are a major component of the soil fauna and are almost certainly a main prey for *S. leucophthalmus*. Two of the UAE records are from *sabkha*-like soils, where *Prochoma bucculenta* C. Koch, 1940 is a dominant tenebrionid and a possible prey. The single record of *S. leucophthalmus* from Libya is also from *sabkha* (Le-Quellec and Ringenbach, 2009), suggesting that this is a preferred habitat across the natural range. The beetle has also been recorded from saltpans in the Mediterranean region, but it also occurs on agricultural land in Iran (Ghahari *et al.*, 2009). Besides the above records, a further specimen probably representing this species was seen, but not captured, at an electric light on Marawah Island, Abu Dhabi during 27-29.XII.1998. *S. leucophthalmus* belongs to the tribe Sphodrini within the Platyninae and it is relevant to note that two other species from this tribe, both endemic to Arabia, could also occur in the UAE; these are *Sphodrus trochanteribus* Mateu, 1990 and *Laemostenus (Arabosphodrus) balkenohli* Sciaky, 1996; the latter from Jebel Akhdar in N. Oman (Sciaky, 1996). *S. leucophthalmus* is a new record for the UAE.

The three large species of carabid ground beetles recorded here for the UAE represent an increase in the total number of species known for the country (Felix, 2009). There are several other carabid species that have been collected in the UAE that are awaiting proper determination before they can be formally recorded. All three beetles dealt with here are already known from Saudi Arabia. They are also likely to be present in other neighbouring countries. However, they are apparently not yet known for the Sultanate of Oman (Janikova, undated).

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