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THE GENUS HARPACTEA IN NORTH AFRICA (ARANEAE: DYSDERIDAE)

1. Introduction.

The catalogues of Roewer (1942) and Brignoli (1983) list 80 species of Harpactea. Three are occurring in Western and Central Europe, whereaes the Mediterranean region counts 77 species; especially in Italy (12), Greece (13) and Turkey (17) the genus is rich in species. So Harpactea essentially is a circum-meditteranean genus.

North Africa on the contrary is rather poor in species: Simon (1911) mentioned 6 species from Algeria, and Alicata (1974) described 5 others from Tunisia. Their distribution is illustrated on figure 1; some species (especially H. angustata) appear to have large distribution areas.

The following questions have been asked:

A. Which is the distribution of the genus Harpactea in N Africa?
B. Is N Africa really poor in species?
C. Have some species indeed large distribution areas?
D. Which is the phenology of Harpactea species in N Africa?

2. Methods.

For the past ten years, the first author has been collecting spiders in N Africa, mainly in Algeria, rarely in Morocco and Tunisia; only a few samples from Libya and Egypt could be studied. The material contained several Harpactea species, especially when using pitfall trapping. The specimens were identified using the descriptions of Simon (1911) and Alicata (1974); in a few cases, type material had to be examined.

3. Results.

A. Distribution of the genus.

On figure 2, we have located all samples with and without Harpactea species. It appears that representants of this genus only were captured in a narrow strip of about 50 km along the Mediterranean coast. If some specimens were found more inland, they were always found in Cedrus forest above 1000m (from West to East: Ouarsenis Massif, Djebel Maadid and three peaks in the Aures. Massif, figure 3). A hypothetical distribution of the genus in N Africa thus can be given on figure 3. Probably Harpactea species are also present in the Moroccan Atlas, along the W coast of Morocco and along the East coast of Tunisia, but this needs to be confirmed. For Libya and Egypt, no data are available, but the presence of the genus seems unlikely.

B. Species richness.

The genus is much richer in species as previously thought. In Algeria, H. globifera, H. forcipifera, H. auriga and H. angustata, all described by Simon, and H. longitarsa described

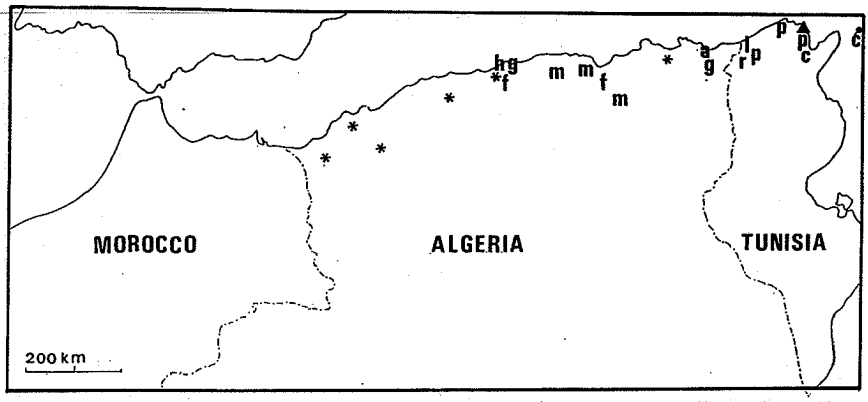

Fig. 1. Distribution of actually known Harpactea species in N Africa. Algeria: *: angustata (Simon); a: auriga (Simon); f: forcipifera (Simon); g: globifera (Simon); h: hombergi (Scopoli); m: maior (Simon); Tunisia: c: carusoi Alicata; l: longitarsa Alicata; ▲ : minuta Alicata: p: punica Alicata; r: ruffoi Alicata.

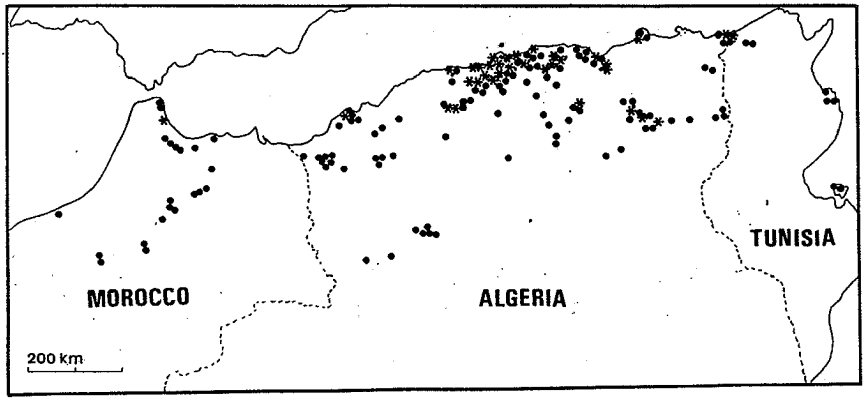

Fig. 2. Distribution of samples with (*) and without (•) Harpactea species in N Africa.

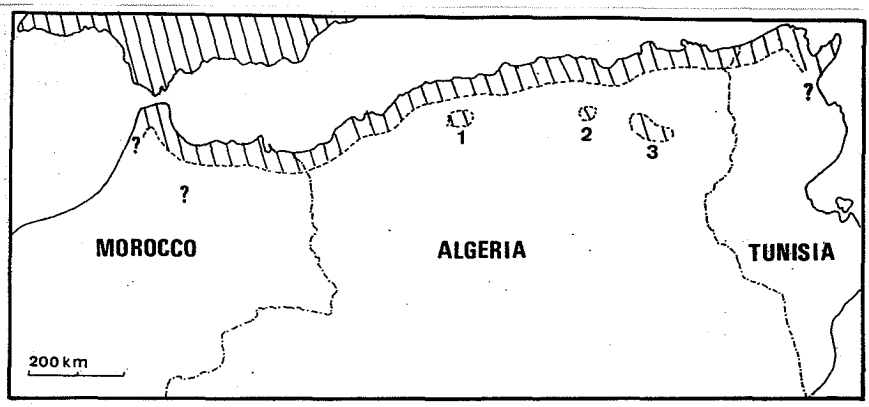

Fig. 3. Hypothetical distribution of the genus Harpactea in N Africa (1: Ouarsenis Massif; 2: Djebel Maadid: 3: Aures Massif).

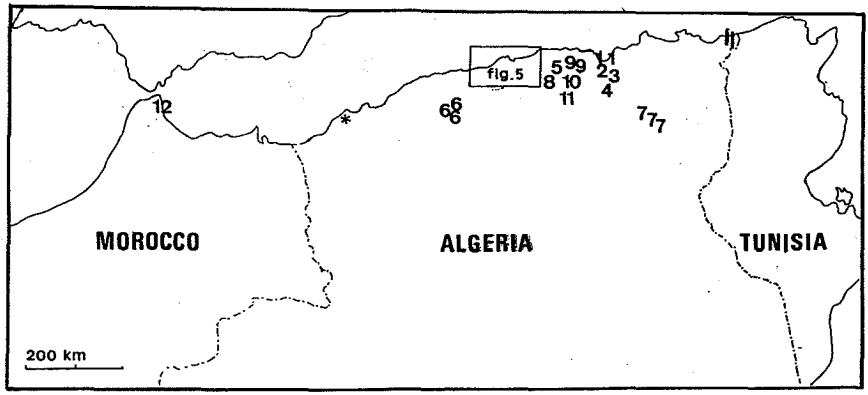

Fig. 4. Distribution of Harpactea species present in our samples in N Africa. *: angustata (Simon); 1: longitarsa Alicata; 1-12: new species.

by Alicata from Tunisia, were rediscovered. Furthermore, 17 new species appeared to be present in the samples; they will be described elsewhere. In Morocco, one new species was collected, and none in Tunisia.

C. Size of the distribution areas.

Fig. 4 represents the distribution in N Africa of all collected species. None of the species appears to occur in more than three localilies and these are always very close to one another. The region of Algiers, which was sampled much more intensively, is shown in figure 5. The eastern part is inhabited by Harpactea auriga. To the East, its occurrence stops abruptly at the Oued Mazafran; at the other side of this river, H. globifera is occurring. Species 13 and 14 occupy the plain of the Mitidja, and the lower slopes of the Atlas of Blida. In the extreme East, another species (16)was discovered.

Several species are occurring in the National Park of Chrea; they are described in Bosmans & Beladjal (in press). This National Park comprises the Djebel Mouzaia (1604m) west of steep the ravine of the Oued Chiffa, and the Djebel Abdelkader (1629m), east of the Oued Chiffa. Two closely related species (15 and 17), both belonging to the hombergi-subgroup of Harpactea, occur on the tops of both peaks; species 18 is occurring between 1200 and 1600m, at both sides of the Oued Chiffa, respectively in Acer and Cedrus forest; finally H. forcipifera was found betweeen 800 and 1200m in Pinus halepensis- and Quercus ilex forest.

The distribution areas of all species are thus rather small; some species are even restricted to mountain tops. Harpactea auriga has the largest distribution, occupying an area of about 360 km2.

We therefore must accept that Simon's (1911) previous distribution data are most probably incorrect. After examination of the type series of the species with the largest distribution area (H. angustata) it became clear that it was composed of several, closely related species, and this could explain the supposed large distribution area of angustata (Simon never kept specimens from different localities in separated tubes).

In view of the small distribution areas, we also have to consider the records of globifera, auriga and forcipifera from the NE of N Algeria as erroneous. We collected them in the region of Alger, and never in the NE of Algeria.

D. Phenology.

Phenological data of three species occurring in different stations at different altitudes are shown on fig. 6. Species of lower altitudes (H. globifera and H. forcipifera) appear to be active from january to june, with peaks in march, may or june, depending on the altitude. Harpactea sp.18, occurring at higher altitudes in Cedrus forest in the National Park of Chrea, with snow cover in winter, appears to show a phenological shift to a late spring-early summer activity.

4. Conclusions.

A. The genus Harpactea is limited to a narrow strip of some 50

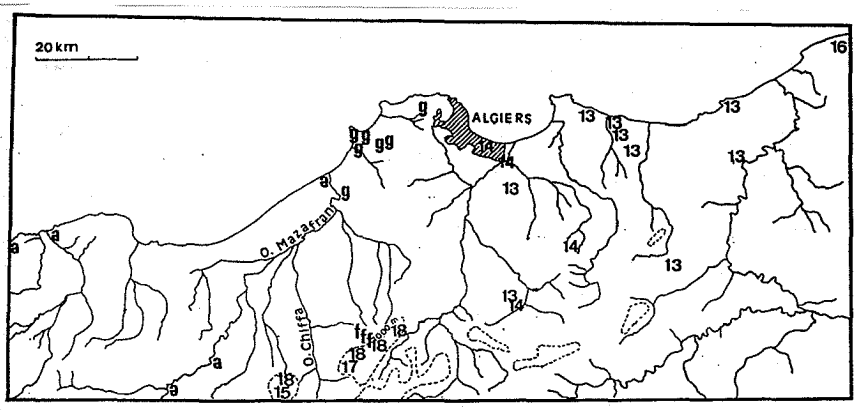

Fig. 5 Distribution of Harpactea species present in our samples of Algiers. a: auriga (Simon); f: forcipifera (Simon); g: globifera Simon; 13 - 18: new species.

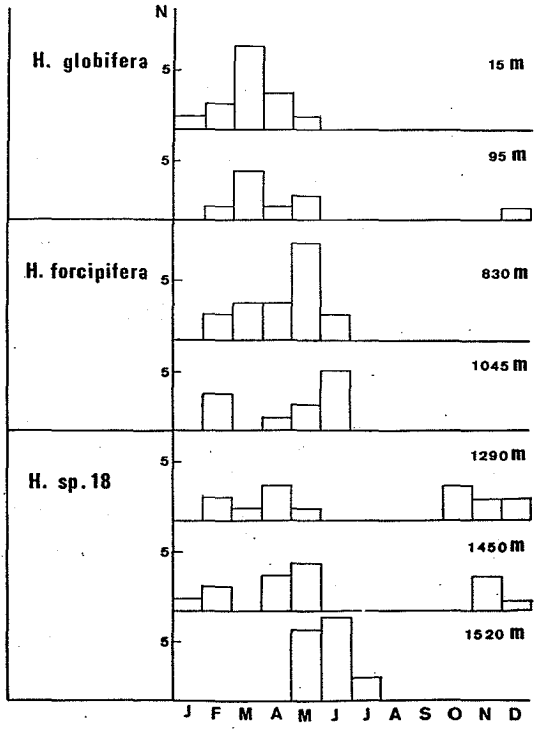

Fig. 6
Mean number (N) of individuals of three species of Harpactea collected per month with five pitfall traps at different altitudes (August: no sampling).

km of the North African coast; inland, it occurs only isolated above 1000m.
B. The genus is very rich in species.
C. All species have very small (mountain tops) to moderate (360km2) distribution areas.
D. The species are active in late winter and spring at low altitude, and late spring and early summer at high altitude.

5. References.

Alicata, L.: Le Harpactea Bristowe (Araneae, Dysderidae) del Nord Africa. Animalia 1: 3-24 (1974).
Bosmans, R. & L. Beladjal: Les Araignées du genre Harpactea Bristowe (Araneae: Dysderidae) du Parc National de Chrea (Algérie). Biol. Jb. Dodonaea 56 (in press).
Simon, E.: Catalogue raisonné des Arachnides de l'Afrique (1re partie). Ann. Soc. ent. France 79: 265-332 (1911).

Deeleman: Do you think H. hombergi has been introduced by man into Algeria?
Bosmans: H. hombergi was cited from Algeria by Simon in 1910, but I think he confused hombergi with other species, and that his citation thus is wrong.

Jocqué: You have shown a zonation of three species in the Chrea National Park; on the right bank of the river they are found from bottom to top, whereas on the left side they only occur in one isolated spot. Can you explain this?
Bosmans: There was only one sampling station on the left bank.