For the biometric study we considered the following parameters (Fig.1): head length (HL); head width (HW); scape length (SL); thorax length (TL); in the case of the sexual castes we also considered thorax width (TW) and wing length (WL). From among the most commonly used indices (Bolton, 1987), we chose the cephalic index (CI) and the scape index (SI), calculated from the equations: CI=HW x 100/HL and SI=SL x 100/HW. For the analytic comparison between the different nests we used an ANOVA, and Scheffé's test for comparisons between two samples (ZAR, 1984).

Cataglyphis floricola nov. sp.

Material

Holotype worker. Spain: Doñana, Huelva, dunes of Matalascañas, nest 3, 28.4.1992, A. TINAUT (In the author's collection.)

Paratypes 4 females, 9 males, 350 workers. Same data as holotype. Specimens deposited in the collection of the National Museum of Natural History in Madrid, Museum of Natural History in Geneva, National Museum of Natural History in Paris, British Museum of Natural History in London and in the collections of Dr. Delye and Dr. Espadaler.

Description

Holotype worker (Fig. 2 - A, D, G): HL: 1.30, HW: 1.22, SL: 1.52, TL: 2.05, CI: 93.84, SI: 124.50. Colour black, with dense microsculpture somewhat less distinct on the gaster; consequently the tegument is mat except on the slightly shinier gaster. Abundant pubescence, but not obscuring the texture of the tegument.

Head rectangular, smooth occipital edge and uniformly arched. Surface densely microsculptured, including the frontal triangle. Compound eyes large and situated in the lower half. Tiny ocelli at the level of the lower edge of the compound eyes. Clypeus with ridge in the centre, arched and with 6 or 7 long hairs on the front edge. Mandibles slightly striated, with 6 teeth, the apical one most pointed, the preapical somewhat less and the rest small and irregular. Maxillary palps as long as the head, with two types of hair, curved and semi-erect, with a length similar to the diameter of the third article. The third and fourth articles almost equal in length, each somewhat longer than the fifth and sixth together, these being nearly equal to each other in length. Scape projecting half its length beyond the occipital edge.

Thorax typical of the genus, epinotum uniformly convex, slightly flat on the dorsal side. Surface without hairs, with a light, shiny pubescence. Large appendages with reddish tarsus and scale-like petiole thick and covered with pubescence.

Gaster slightly shiny due to lighter microsculpture. Long hairs only in the ventral region and around the anus. Very sparse dorsal pubescence.

Paratype workers: Two types of colouration occur: 1) monotone-black or dark grey; or 2) bicoloured-with reddish thorax and legs, and black gaster. Each of the two types shows considerable uniformity (Table 2), and the only apparent differences between individuals of the first type are in the number of mandibular teeth, which vary between 5 and 6, and the colour, which can range from black to dark grey. Among the workers of the bicoloured type, differences also appear in the number of teeth, between 5 and 6, and in the frequent presence of two sub-erect hairs in the occipital region.