tigation the description of the species is based on more than 500 ☿☿. ♂ and ♀ are described for the first time.

3. The species status was first recognized by the remarkable locomotor behaviour and the extremely wide foraging range of the ☿☿. Rotatory and translatory velocities as measured by motion picture analyses exceed those of *albicans*. Walking distances covered by ☿☿ during individual foraging trips are more than ten times longer than in *albicans*.

4. A number of morphological characters, which might be correlated functionally with locomotor behaviour, clearly separate *fortis* from *albicans*:

a) Body size (Fig. 11). ☿☿ are significantly larger in *fortis* (head width 1·92 ± 0·02 mm [S.E.], range 1·25-2·45 mm) than in *albicans* (head width 1·25 ± 0·07 mm [S.E.], range 0·75-1·75 mm). The relation between head with and length of alitrunk nearly coincides in the two species (Fig. 20).

b) Lengths of legs (Figs. 13-15). Legs are much longer in *fortis* than in *albicans*. For example, the ratio of hind femur to length of alitrunk is 1·72 in *fortis*, but only 1·39 in *albicans* (as determined for equal sized ☿☿; head width: 1·50-1·70 mm). In the relative lengths of its legs, *fortis* exceeds even the larger *bicolor*.

c) The shape of the petiole differs between the two species slightly but consistently (Fig. 8).

d) Ratio of 3rd to 4th segment of the maxillary palp (Fig. 7). In *fortis*, the 3rd segment is longer than the 4th segment (ratio III/IV: 1·17), in *albicans* both segments are of equal length (ratio III/IV: 1·00).

e) Ratio of 1st to 2nd segment of funiculus (Fig. 6). In *fortis*, the 1st segment is of about the same length as the 2nd segment (ratio I/II: 1·08), in *albicans* it is significantly longer (ratio I/II: 1·59).

f) The ♂ genitalia (squamula, stipes, lacinia, volsella, sagitta) differ distinctly between the two species (Fig. 10).

5. Some functionally related morphological and behavioural characters are discussed in terms of the high-speed locomotor behaviour of *fortis* ☿☿. Both the extremely long hind legs and the usually upright posture of the metasoma (Fig. 22) are considered to facilitate high turning velocities. Elevating the metasoma decreases the moment of inertia when the animal turns. As interspecies comparisons show, the shape of the petiole (cubic or nodiform in contrast to squamiform) might be correlated with the habit of erecting the metasoma.

6. The total visual field covered by the two compound eyes is larger in *fortis* than in *albicans* (and *bicolor*). Thus, the fastest of the three *Cataglyphis* species considered here has the largest field of view.

7. *C. fortis* occupies a well defined ecological niche. It inhabits the salty plains of the North African chotts and sebkhas. Nests are often found within inundation areas that are flooded once every year (during the winter torpidity of the *fortis* colonies). No other *Cataglyphis* species occurs within this salt-plain habitat. Even where *fortis* and *albicans* are found rather close together, there are striking differences in the microhabitat selected by the two species. While *fortis* prefers soft and often moisty ground, *albicans* is confined to dry, hard and steppe-like regions. When foraging within the chotts, *fortis* ☿☿ leave the nest for more than 150 m. In *albicans*, the mean foraging distance is less than 10 m.

8. The evolutionary history of *fortis* is discussed against the background of what is known about the pleistocene and postpleistocene development of the northern Sahara. It might well be that *fortis* is an endemic species nowadays restricted to the North African chott area.

Résumé.

1. Les fourmis du genre *Cataglyphis* FÖRSTER 1850 (Formicinae) sont des fourmis extrêmement rapides chassant sur le terrain dur et sablonneux de leur habitat du désert aux heures les plus chaudes de la journée. Malgré la singularité de la plupart des espèces *Cataglyphis*, le genre n'a pas, récemment, reçu de mention taxonomique. La seule clef taxonomique disponible date de l'année 1929, où SANTSCHI décrit de manière prolixe et lourdaud une abondance de races et de va-