related with the degree of structural complexity of the corresponding plant communities (Covarrubias *et al.* 1976, Di Castri & Vitali-Di Castri 1981). Temporal changes in density and diversity appear to be inversely correlated with this structural hierarchy (Covarrubias *et al.* 1976). Irrigated soils in the coastal steppe show a higher mean density of microarthopods than do natural soils in the same area. Acaridid mites tend to have higher populations than prostigmatid mites in irrigated soils.

Millipedes

The order Spirostreptida contains the most obvious millipedes in arid regions (Crawford 1979). In the Namib, these often large-bodied detritivores become active around inselbergs (Crawford & McClain 1983) and along normally dry water courses after rains. Species of harpagophorid spirostreptids may be locally important in such habitats but are certainly not as widespread in the Namib as they are in some other deserts (Crawford *et al.* 1987). Polydesmid millipedes are found in relict forests of the coastal CAZ; their distribution in non-forested areas has received little study.

Apterygote insects other than Collembola

At least forty species of lepismatid thysanurans inhabit the Namib Desert; about nine occur in the main dunefield (Watson & Irish 1988). Little is known of the ecology of the species that inhabit the non-dune environment, except that, like other desert lepismatids (Kaplin 1978), they consume detritus and live for up to five years. Dunefield species either occupy slipface or vegetation clump habitats (Watson 1989) and exhibit specific diel activity periods (Watson & Irish 1988). These small arthropods were abundant at a site that had earlier experienced an unusually strong rainfall event (Crawford & Seely 1987).

Lepismatid also occur in the CAZ and, like collembolans, are found in mesic soils in small canyons and patches of matorral (Saiz 1963, Di Castri & Vitali-Di castri 1981). Meinertellid microcorhyphians are also in the CAZ, but little is known about the species diversity or ecology of this group (Covarrubias *et al.* 1964).

Orthopteroid insects other than termites

To our knowledge there is little evidence that species in this category other than crickets, which are essentially omnivores, are significant detritivores either in the CAZ or in the Namib.

Termites

Termites are abundant throughout the world (MacKay 1991). They are important consumers of dead (and sometimes living) organic throughout southern Africa; 18 species in nine genera were reported by Coaton & Sheasby (1972) to inhabit what is now Namibia. Grass harvesters (e.g., *Trinervitermes*, some species of which build large mounds) and subterranean species (e.g., *Microcerotermes*) are members of the family Termitidae that occur in the Namib interior. The widespread hodotermitid, *Hodotermes mossambicus*, is a harvester common to both the interior and to portions of the dunefield. Also widespread is the rhinotermitid, *Psammotermes allocerus*, a subterranean species with galleries that extend to dune crest; it may well be the major consumer of detritus in the dunefield (Crawford & Seely unpublished results). At least one species of the kalotermitid genus *Epicalotermes*, which has colonies in dead wood not in contact with the ground, occurs in dry steam beds of the coastal region (Coaton & Sheasby 1972).

In contrast, termites appear to be inconsequential consumers in the CAZ (Covarrubias *et al.* 1964, Di Castri & Vitali-Di Castri 1981) and are apparently absent in most areas (personal observations).

Ants

Ants are usually abundant in deserts, both in term of numbers and species (MacKay 1991). They are opportunistic organisms, which may explain why many species survive in arid regions where food resources can be lacking in quality and quantity. The Namib appears to be relatively rich with 26 species (Marsh 1986). Ten species are granivores, ten are honeydew/nectar feeders, three are insectivores and three are omnivores. Few species are actually found in the dunefields. Their potential role as detritivores is not clear, although several are