

Fauna of soil Gamasina mites (Acari, Mesostigmata) along the Latvian seacoast and the relation to respective habitats

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Soil free-living Gamasina mites (Acari, Mesostigmata) were analysed in the 13 coastal sites along the Latvian seacoast. Gamasins were collected from the driftline habitats, primary, yellow and grey dunes and determined to the species level. Altogether 76 species from 10 families were found. The investigated habitats yielded 24, 31, 43 and 36 Gamasina species, respectively. Twenty-four species were recorded for the first time in Latvia. Species composition was diverse and specific for each of the investigated habitat types. Rhodacaridae was recorded as a dominant family in the investigated driftline, primary and yellow dune habitats. Parasitidae and Aceosejidae appeared with almost equal number of species in all habitats, while Phytoseiidae and Laelaptidae were restricted to habitats with denser vegetation. Four Gamasina species were common for all habitat types. Thirty-seven species were found in only one habitat type. The most numerous species from the driftline habitats were ubiquitous *Cheiroseius necorniger* and washed ashore inhabitants *Thinoseius spinosus* and *Halolaelaps balticus*; from the primary dunes the ubiquitous *L. halophilus* and *L. bicolor*; and washed ashore species *H. balticus*; from the yellow dune habitats the ubiquitous *Minirhodacarellus minimus* and *L. bicolor*; and forest and dune species *Leioseius insignis* and from the grey dunes mainly common humus and moss species *Zercon carpathicus* and the hygrophilous *Hypoaspis vacua*. Driftline habitats had the smallest number of Gamasina species, but were recognized as the most abundant amongst the seashore habitats investigated. Dune habitats with the relatively variable vegetation and soil humidity conditions had more diverse species composition. Comparatively poorer in nutrients, the primary dune soils had higher number of species than the driftline. About half of the total number of species was typical for respective seashore habitats.

Key words: Acari, Gamasina mites, coastal habitats, dunes, driftline, species' composition

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