Fifty Years in the Research of the World Oribatida Fauna
Ad Honorem Dr. Marie Hammer

By

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The oribatid mites of the extra-European regions of the Earth until recent times have remained quite unknown. There loomed up the danger that the primary vegetation mostly of the southern continents undergoes changes or disappears altogether, and with in the oribatid fauna, before it is discovered and described.

After realizing this potential danger, several oribatologists set the target to study and describe the oribatid mites of the extra-European regions. An outstanding role has been played in this work starting in 1958 by Dr. Marie Hammer, who in 1984 commemorates the fiftieth anniversary of her scientific career. I feel myself honoured to make a summary and evaluation of her pioneering work.

Marie Hammer was a student of zoology in the University of Copenhagen when in 1930 the work of Bornebusch: "The fauna of the forest soil" appeared. This was the first work which drew attention to the significant role of soil animals in the life of the soil, mostly in the energy turnover. Upon the impact of this work Marie Hammer decided to study soil zoology. In 1931 she went to Iceland and began her investigations. In 1932 she obtained the degree of Master of Science in zoology. Following this her life took a decisive turn when the famous Knud Rasmussen, the explorer of the Arctic invited her to his 7th, the last "Thule expedition" to Greenland. It seems quite obvious that the joint effect of Bornebusch and Rasmussen was decisive in the final decision of the young zoologist, when she drew up a programme of several expeditions to visit various continents.

But the realization of this programme was postponed by politics: the ten years between 1936 and 1945 were not suitable in Europe to start overseas scientific expeditions. In these years Marie Hammer elaborated her materials collected in Greenland and also wrote her doctoral thesis. She also got married

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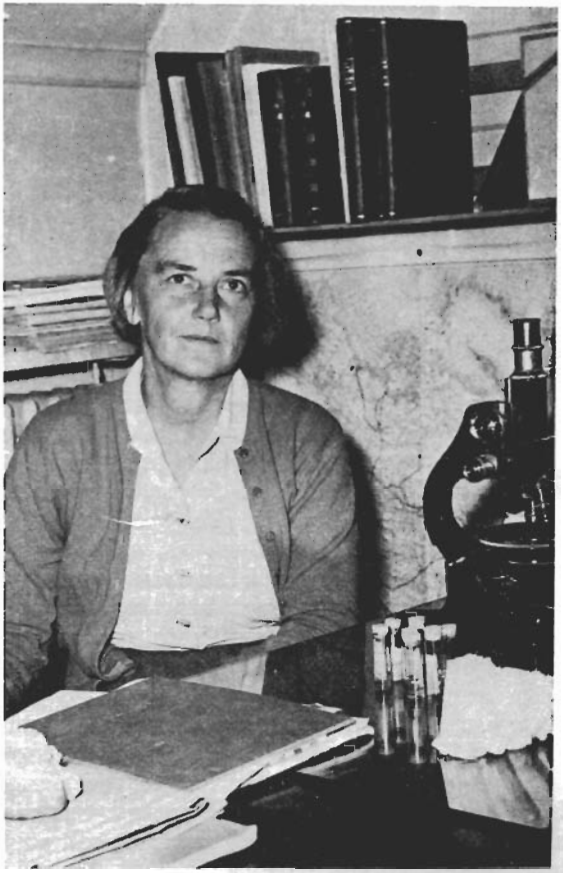
and gave birth to her children. Notable dates of her life: 1936: married Dr. phil. OLE HAMMER zoologist. 1938: KAREN was born (today biologist). 1941: INGA was born (today social pedagogue). 1942: BIRGITTE was born (today biologist), 1946: PEDER was born (today engineer). 1944: She obtained her degree of DR. phil. in the University of Copenhagen with her thesis: "Studies on the oribatids and collemboles of Greenland."



After the Second World War MARIE HAMMER set to her original plan to realize the scientific expeditions. The goal may be a big one for one research worker: she wanted to explore the Oribatida fauna of the Andes Mountains in South America. She felt that new and basic information are needed, so before lauching on the expedition, she visited all the large Oribatida collections of the world in order to be acquainted to extra-European species. Her itinerary included: 1948: studied at Harvard, Cambridge, U. S. A. (JACOT's collection). 1949: Leiden, Holland (OUDEMAN's collection). 1950: Stockholm, Sweden (TRÅGÅRDH's collection and SELLNICK's collection). 1951: British Museum, Natural History, London, Great Britain (MICHAEL's collection). 1955: Firenze, Italy (BERLESE's collection). In oribatodology there has been no predecessor who would have followed such planned programme to explore any particular re-

gion of the world. Her South American routes were realized in 1954–1955: Argentina and Bolivia (she was accompanied by her husband DR. OLE HAMMER); in 1957–1958: Panama, Ecuador, Chile, Peru, Argentina (she was accompanied by her daughter BIRGITTE).

In the Oribatida material of South America she found such an ancient type species, *Mucronothrus nasalis*, which had be found in Greenland, North Europe and the Alps in very sporadic localities. It is quite probable that the area of this species must have been one whole in the Permian Period, but later became disjointed. In order to prove this hypothesis she travelled to other oversea countries. In 1962–1963: Fiji Islands, New Zealand, New Guinea; in 1969–1970: West Pakistan, Java, Bali, New Zealand, Tonga Islands, Western Samoa, Tahiti (partly with her husband and partly with BIRGITTE); in 1973–1974: Java, Bali (again with her husband and INGA). Among the listed regions it is New Zealand which is of paramount importance, since it falls within the *Nothofagus* forest belt as do the southern parts of South America. Here the vegetation alone suggests close palaeobiogeographical affinity between the two regions. The oribatid fauna of the *Nothofagus* forests displays some striking similarity between New Zealand and the southern parts of South America. The three volumes discussing oribatids of New Zealand are the most important work of MARIE HAMMER. The description of the numerous endemic genera and species along with a biogeographical synthesis closing the books make the work the best oribatidological handbook of recent years. There are not many examples in the zoological literature that one author would have attempted to show with such rich and complete material the transatlantic relationship of the southern continents as did MARIE HAMMER in her works published between 1958 and 1968 on the faunae of South America and New Zealand. These papers have well been complemented by the contributions from the Pacific islands, well demonstrating the basic differences of the former Gondwanaland and the islands surrounding it.

Besides making a biogeographical synthesis, MARIE HAMMER did a great service to zoology in general by exploring the oribatid fauna of South America and the South Sea Islands. She carried out her research in regions which today are gradually defaced and with it the primary vegetation of the primary soil fauna become extinct. Thus her works documented such a fauna which today under our eyes perish and many species are pushed to the brink of extinction.

To have a full picture it must be stated that MARIE HAMMER has never received any salary, besides travelling expenses, not a single cent from anybody; she and her husband covered all costs. She was her own Maecenas, and what is more, like a true Danish patriot she presented her invaluable collection to the Museum of Copenhagen.

If we glance through the life of MARIE HAMMER, we see a fruitful life rich in experiences. She had the opportunity to be a pioneer in the 20th century, an explorer of two large continents. There is scarcely any European country whose Oribatida fauna is so well known as is that of New Zealand. While travelling she has seen beautiful countries, which must have been great pleasure to her, but the biggest present to her surely was the joy of scientific research. She wrote to me in one of her letters: "*I did it as a hobby. I call these years: my 50 years for Minerva, but is has been an interesting life.*" We all wish her many more years to be able to sacrifice to Minerva.

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