Philipp Ent 19 (2): 97-98 ISSN 0048-3753 October 2005

DR. LEONILA A. CORPUZ-RAROS : TORCHBEARER FOR PHILIPPINE ACAROLOGY

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Dr. Leonila A. Corpuz-Raros was trained as systematist and has devoted her scientific career to this biological discipline. Her research in systematics since the early 1960s has dealt mainly with the little-known Subclass Acari (Class Arachnida), especially beneficial forms that are important as natural enemies of pests and as decomposers. However, she also devoted some time to plant pests, storage pests, and vertebrate and insect parasites. As a result of her studies, she has discovered, named and described 348 new species and erected 19 new genera of Philippine mites, mostly as sole or senior author. She also identified and recorded the occurence in the Philippines, of 285 species originally described elsewhere. Altogether, her species discoveries and new records comprise more than half of 1,210 species that are presently known in the country. She still actively works on them and many more novel discoveries are expected.

She developed an interest in these minute animals as a masteral student at UPLB in the early 1960s, but temporarily abandoned this group to work on aphids, the subject of her research assistantship and PhD dissertation in the University of Minnesota. Through her PhD dissertation, she discovered 13 new species from North America. Upon returning home, she participated in an ecological project on aphid vectors of a virus disease of potato in Benguet province, leading her to discover the occurence of male and sexual aphids in the Philippines. This was an outstanding discovery since it debunked textbook myths that male aphids do not exist in the tropics and that aphids reproduce there only by parthenogenesis.

After obtaining her PhD degree, she resumed her work on mites where she pioneered in the systematics of predatory plant mites and decomposer soil mites. Through her research, she amassed and prepared over 100,000 slides of mites from various islands of the Philippines, especially Luzon. These collections, all deposited in the UPLB Museum of Natural History, are now a national treasure, including the most type specimens (336 holotypes and over 6,000 paratypes), unparalleled in extent by any group of organisms in Philippine museums. They also include numerous identified specimens of species that are of importance to agriculture, veterinary and human medicine, forestry, and the general environment. They are scientific documentations not only of our patrimony but also of global biodiversity at large. Their scientific value transcends time and national boundaries.

Her numerous publications, a number of them in international or ISI-accredited journals, called attention to the existence of local expertise by which the world community can gauge scientific developments in acarology not only in the Philippines but in the whole of Southeast Asia where there are only a few active acarologists at present. The data she has generated about our mite fauna form part of the building blocks for ecological, biogeographical and evolutionary syntheses that touch on various facets of society. These kinds of data have become all the more significant by the realization that global diversity conservation programs could not proceed as originally envisioned by covenantors at the 1992 Rio de Janiero Global Biodiversity Treaty, because of the dearth of information and expertise on the biota of Third World countries where biodiversity is most threatened. Conservation workers identified this "taxonomic impediment" as the bottleneck in global conservation programs. The call of the times is biodiversity science or systematics. The Philippines has moved a step ahead of most others among developing countries with respect to our mite fauna. Much of these are due to Dr. Raros' works.

Her commitment to systematics was borne out of her realization that to study insect biology and apply it to the technology of pest control, one must recognize his subject animal from the many others like it, first and foremost. In response to pressing pest problems brought about by insecticide resistant spider mites and the El Niño of 1997-1998, Dr. Raros responded to the call for research that would provide more lasting and safer alternatives to chemical pest control, particularly on premium ornamentals in the Cordilleras. With funding from the DA-BAR, minimal and erratic as funding releases have been, she developed within a short time, cheap and easy protocols for mass rearing some promising phytoseiids for the biological control of these pests. She envisions a pest management program calling upon ecosystems concepts as framework, and involving not only the predator-prey system on arboreal crop parts but also the soil subsystem where natural control agents breed, take refuge and find alternatives or bridging prey. Her systematics studies of both plant- and soil-inhabiting forms are the ingredients needed, ingredients that we find nowhere else in Philippine entomology at present. Indeed, Dr. Raros has laid the groundwork for a more truly sustainable approach to mite pest management. Philippine economic entomology, especially biological control, can benefit tremendously by taking heed of the approach advocated by Dr. Raros.

Basic as her scientific contributions are, their significance to Philippine biodiversity documentation and conservation, to applied concerns in pest management, and to Philippine society, are beyond refute.