

The Unsung Heroes:

The “Spider Man” of Los Baños

Doctor Alberto Barrion, “Bert” to his friends, is a man with a great fondness for spiders.

His desk is crowded with jars full of defunct arthropoda; he has spent much of his life visiting them in the dank and gloomy undergrowth of countless rice fields, and he is the proud curator of IRRI’s arthropod reference collection.

But spiders are simply the stars in Bert Barrion’s teeming world of rice-field insects. For 24 years he has been an entomologist on the staff of IRRI’s Entomology and Plant Pathology Division and, in 2000, he was named Outstanding Local Scientist by the Consultative Group on International Agricultural Research in Washington, D.C., for his contributions to IRRI research.

In his present position as a senior associate scientist, Dr. Barrion plays a prominent role in the vital research field of integrated pest management. He preaches antipesticide sentiments with an almost evangelical zeal. And, just occasionally, one is left to wonder whether he feels more for the farmers or for the beneficial insects of the rice-growing environment.

“Farmers generally know that pesticides will kill pests,” he says. “What they don’t know is that many of these chemicals are nonselective, broad-spectrum products. They kill everything. They’re detrimental to the environment; they’re even a risk to the farmer and his family.”



“What we’re promoting is natural biological control of rice pests. Rice paddies have a very rich array of beneficial arthropods—predators, parasites, and parasitoids—and, if the rice environment is regarded in a holistic way, then encouraging these beneficial arthropods, instead of wiping them out, is clearly the best way to control pests.”

He goes as far as reassuring farmers that they shouldn’t panic and run for the insecticide when they see pests on their rice crop. “If you kill all the bad ones, there won’t be any food for your beneficial friends,” he explains. “Insecticides should only be used when there’s an outbreak of some kind, because that means that, for some reason, biological control is no longer working.”

Dr. Barrion’s work has led to the use of naturally occurring biological control agents to control insect pests, resulting in increased farm profits without resort to chemical pesticides.

Much of his career has been an effort to understand the complex relationships between the tiny, often unseen, creatures that live in tropical rice fields. One of his best known publications is an insect identification

kit for rice pests and their natural enemies, used widely by scientists, researchers, and students.

In the course of his studies, he keeps finding new, previously unrecorded creatures. He’s named eight genera and 270 species of spiders new to science, and he’s working on describing 28 new taxa. His review of Philippine chalcids, the tiny wasps that kill the eggs of rice leafhoppers and planthoppers, yielded 23 species. Of these, eight genera and 15 species are new Philippine records. In the search for names, he only has to pick up the IRRI staff list.

Three of the latest are *Oligosita cantrelli* (after IRRI’s director general, Dr. Ronald Cantrell), *Paracentrobia wangi* (after IRRI’s deputy director general for research, Dr. Ren Wang), and *Oligosita mewi* (after the head of IRRI’s Entomology and Plant Pathology Division, Dr. Tom Mew). All are tiny parasitoid wasps native to the Philippines rice-farming ecosystem.

Dr. Barrion is the head of IRRI’s taxonomy laboratory. He is recognized as one of Asia’s top entomologists and araneologists.

