

## Naohide Hiratsuka (1903–2000)

The recent death of Naohide Hiratsuka (24 July, 2000) marks the loss of Asia's leading mycologist/phytopathologist. Born near Sapporo, Japan, in 1903, he commenced his training in the Department of Agricultural Biology at Hokkaido Imperial University in 1923. He received a B. A. there in 1926, entered the graduate course in the same university later that year (major field, mycology) and was appointed a lecturer there in 1928–29. He was awarded a Doctor of Agriculture degree by Hokkaido Imperial University in 1936, and a Doctor of Science degree by Hiroshima University in 1954.

Dr. Hiratsuka was appointed Professor, Botany and Phytopathology, at Tottori Agricultural College (Tottori), a position he held from 1929 to 1946. In subsequent years, he held appointments as Professor, Mycology and Botany, College of Agricultural Education (Tokyo) 1946–1949; Professor, Mycology and Phytopathology, Faculty of Agriculture, Tokyo University of Education, 1949–1967, and Professor, Phytopathology, Yokohama National University (1952–1954). In 1967, Dr. Hiratsuka returned to Tottori as Director of the Tottori Mycological Institute. During this period (1967–94), he also held faculty positions in several Chinese universities, including Visiting Professor, Yunnan Agricultural University, Yunnan (1981); Scientific Advisor, Institute of Microbiology, Academia Sinica, Beijing (1981), and Emeritus Professor, Shihezi Agricultural College, Xinjiang (1986).

Dr. Hiratsuka was widely recognized for his studies in rust biology and was awarded the Prize of the Phytopathological Society of Japan in 1958, and that of the Japan Academy in 1962. He later became a member of the Japan Academy of Sciences (1973–2000), and was appointed Chairman, Section II, of the Academy in 1993. He held honorary memberships in the Phytopathological Society of Japan, the Mycological Society of Japan, Botanical Society of Japan, Japan Society for Biosciences, Biotechnology & Agrochemistry, British Mycological Society, Korean Mycological Society, Mycological Society of America, and Societas Phytogeographica (Kyoto). Memberships in other societies of which he was an active member include the Genetics Society of Japan, the Japanese Forestry Society, the Ecological Society of Japan, the Japanese Society of Medical Mycology, the Research Society of Antibacterial and Antifungal Agents (Japan), the Japan Society for Culture Collections, Japan Society of Plant Taxonomists, and the Society for Actinomycetology (Japan). He served terms as President of both the Phytopathological Society of Japan (1962–63) and the Mycological Society of Japan (1962–1968). Many will remember him in his role as President, the 3rd International Mycological Congress, Tokyo (1983). He presented the special lecture, "Past, present, and future in rust taxonomy" after the opening ceremony.

Naohide Hiratsuka's father, Naoharu, studied flax rust (*Melampsora lini*) and published several journal arti-



cles on rusts, the first in 1898. But, he soon became an executive in a linen company and did not pursue phytopathological studies. His father's brief encounter with uredinology possibly sparked Dr. Hiratsuka's keen interest in rusts; his first published papers (1926) dealt with species of *Melampsorium* and *Melampsora*. Subsequently, Dr. Hiratsuka published more than 400 papers and books on the Uredinales over 65 very active years. His interests in rusts ranged from taxonomy, morphology and life cycles to biogeography and host resistance. His taxonomic studies included monographic treatments of numerous rust taxa, including the genera *Melampsorium*, *Melampsora*, *Puccinia* spp. on several host groups, *Uromyces*, and *Hamaspora*, and the family Melampsoraceae. Two outstanding monographs were "A monograph of the Pucciniastreae" (1936) and "Revision of taxonomy of Pucciniastreae" (1958). The major publication in this area was "The rust flora of Japan" (1992), published by 10 co-authors (mostly students of Dr. Hiratsuka).

Dr. Hiratsuka's interests also extended to applied aspects of uredinology, and many of his studies were aimed at providing basic information needed by agriculturists to cope with crop rusts in Japan and nearby

regions. He performed inoculation experiments to determine host ranges of rust species, and to detect alternate hosts in the case of heteroecious species. The results of these experiments were summarized in a paper in 1983 (Rept. Tottori Mycol. Inst. No. 22, with Dr. S. Sato and Dr. M. Kakishima). He also explored the area of resistance and susceptibility of wild and cultivated grasses to cereal rusts. These studies led to the publication of "Uredinological Studies" (1955), a book summarizing his research into this and other aspects of rust biology. Research prizes, awarded by the Phytopathological Society of Japan (1958) and the Japan Academy Prize (1962) were in recognition for this book and other publications on rusts.

Dr. Hiratsuka was recognized as the foremost authority on the taxonomy and biology of east Asian rust fungi. His numerous monographic and regional treatments, as well as discussions of the significance of spore morphology in classification, host resistance, heteroecism, and general rust biology, were outstanding. He named more than 250 species in 31 different rust genera;

his monographic studies covered the Japan Archipelago, Taiwan, Korea, and parts of mainland China. Awards by societies within Japan attest to his reputation as a mycologist and plant pathologist there; five genera and 15 species of rusts and other fungi were named in his honor by mycologists and phytopathologists in Japan and elsewhere.

In addition to his outstanding abilities as a teacher and scientist, Dr. Hiratsuka was a capable administrator and was Director, the Tottori Mycological Institute (1967–94). He was an amiable, gregarious person who greeted visitors to the institute cordially and enthusiastically. He will be remembered for his tireless devotion to the study of mycology and phytopathology, the high quality of his workmanship, and the prodigious production of publications on the rust fungi. For those who knew him personally, his engaging personality, keen sense of humor, and seemingly boundless energy will also be remembered.

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