

NOTES ON ECONOMIC PLANTS

Barrio Berlin: The Ecological Niche of *Ipomoea peruviana* (Convolvulaceae) in Peru.—The planning of exploration and collecting trips for genetic resources of the camote, batata or sweet potato (*Ipomoea batatas* (L.) Lam.) at the Centro Internacional de la Papa (CIP) have given special priority to the species included in *Ipomoea* section *Batatas* since 1985. This priority was given because collectors, taxonomists and plant breeders share an interest in wild, poorly known species, whose traits have potential for improving the sweet potato. *Ipomoea peruviana* O'Donell (*I*) is a species with few systematic studies because of the difficulty in finding the habitats where it grows in Peru and Ecuador, countries where it has been reported (2, 3). In the history of its existence in Peru it has been reported from the Department of Loreto in 1933 (*Klug 3089* isotypes F, NY, US), and the Department of San Martin in 1936 (*Klug 4326*, paratype US). This rare species, formerly thought to be endemic to Peru, was only recently found in Ecuador in the Province of Napo in 1980 (*Brandbyge et al. 33633* AAU) and 1981 (*Brandbyge et al. 30500* AAU).

Because of the early report of *I. peruviana* in eastern Peru, CIP initiated an exploratory trip. On this trip in June of 1987, the second author found the plants at an altitude of 240 m in the District of Sacanche, Province of Huallaga, in the Department of San Martin (lat. 6°50'S, long 76°50'W, *De La Puente 2459* CIP Accession No. 460126; *De La Puente 3812* CIP Accession No. 460130). This habitat should be considered the typical ecological niche in the Barrio Berlin, one of the three suburbs of the District of Sacanche. Subsequently the first author made four trips to explore this northeastern region of the country during May in 1989 and 1990 and July and September of 1990.

This ecological niche has little variation in altitude and geographical location. The altitude is between 220–225 m, and the coordinates vary between 6°50'–7°05' latitude S and 76°42'–76°50'

longitude W. Climatic conditions in the flowering and fruiting period (July–September) vary from 25–28°C and 85–90% relative humidity. Through this natural habitat flows the River Saposoa, favorably influencing the microclimate and the survival of *I. peruviana* which climbs on shrubs. The population of this taxon encompasses an area of about 4 km² on soils with a sandy texture and an abundance of humus.

The preservation of this ecological niche is of the utmost importance because of the difficulty in increasing seeds under controlled conditions in La Molina in Lima, Peru. During the second half of August and the first half of September the farmers in Barrio Berlin prepare their land for planting food plants (e.g., maize, beans). The farmers make these preparations by the slash-and-burn technique, cutting and burning shrubs including those on which this endangered species grows. Without doubt, there exists considerable danger for genetic erosion of this population of *I. peruviana*.

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Literature Cited. (1) O'Donell, C. A. 1948. Convolvulaceas Peruanas nuevas. *Bol. Soc. Peruv. Bot.* 1: 4–7; (2) Austin, D. F. 1983. Variability in sweet potatoes in America. *Proc. Amer. Soc. Gort. Sci.* 27(B):15–26; (3) Austin, D. F. 1988. The taxonomy, evolution and genetic diversity of sweet potatoes and related wild species. Pages 27–60 in P. Gregory, ed., *Exploration, maintenance, and utilization of sweet potato genetic resources*. Proc. Planning Conf., Centro Internacional de la Papa, Lima, Peru.

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