## DRAGONFLY RECORDS FROM EL VALLE, REPUBLIC OF PANAMA

During a short visit in March 1998 I had the opportunity to search for dragonflies in the surroundings of El Valle (8°35' N, 80°7' W), a village about 60 km WSW of Panama City. It is situated in an vulcano crater valley 20 km in diameter, 600-650 m above sea level. The crater edges reach up to 1173 m (Cerro Gaitál). The valley is drained by numerous small streams, tributaries of the Rio Antón. During a short trip in March 1998 I visited one of these streams and the Rio Antón at two sites, viz.: (1) Cerro Pintada, W part of the valley, stream with riffles, waterfalls, and some deep pools; 5--III-1998; - (2) Rio Antón, upper course with sandy bed; 5/6-III-1998; - and (3) Rio Antón at the outflow from the valley, ca 10 km downstream of (1), in a shady gorge, stream channel due to the dry season 10 to 20 m wide, mainly rock with some gravel and sparse aquatic vegetation; 6-III-1998.

I collected larvae and exuviae and observed adults of 13 species, viz.: Hetaerina fuscoguttata Sél.: adults, exuviae (1, 2, 3); – Archilestes grandis (Ramb.): adults, larvae (1); – Mecistogaster ornata Ramb.: adults (1); – Heteragrion valgum Donnelly: exuviae, fresh  $\Im$  (1); – Argia extranea (Hag.): adults (1, 3); – A. rogersi (Calv.): adults, oviposition (1); – Argia sp.: adults, oviposition (3); – Erpetogomphus tristani Calv.: larva, adult reared in the lab (1); – Erpetogomphus cf. sabaleticus Wilmsn: larvae, rearing failed (1, 2); – Phyllogomphoides litoralis Belle: larvae, adults reared in the lab (1, 2); – Dythemis sterilis Hag.: adults, exuviae (3); – Orthemis ferruginea (Fabr.): adult (3); – Libellula herculea Karsch: adults (1).

Relatively few adult dragonflies, including H. fuscoguttata, A. grandis, Argia spp. and the libellulids were recorded, all of them in small numbers. Some exuviae of H. fuscoguttata and D. sterilis and one emerging H. valgum female were collected. The sampling of larvae was more successful, about 10 Gomphidae larvae were found at sites 1 and 2. In contrast, at site 3 no larvae were found. For identification the gomphid larvae were reared in the lab, yielding one E. tristani and two P. litoralis. The rearing of the second Erpetogomphus failed, but is was probably E. sabaleticus. At a pool at site 1 some 100 A. grandis larvae were worten, many of them floating in the open water without any movements.

The dragonfly fauna of central Panama is well examined. However, as far as I know, no information is available on the dragonflies of El Valle. H. fuscoguttata, A. grandis, H. valgum, A. extranea, A. rogersi, and L. herculea have been recorded in the National Park Cerro Campana which is part of the same mountain range as El Valle (T.W. DONNELLY, 1992, in: D. Quintero & A. Aiello, [Eds], Insects of Panama and Mesoamerica: selected studies, pp. 52-90, Oxford Univ. Press, Oxford). M. ornata, E. sabaleticus, D. sterilis, and O. ferruginea are known from other locations in central Panama (DONNELLY, 1992). One red eyed Argia could not be identified --- it may be an unknown species (S. Förster, pers. comm.). E. tristani was reported only once for Panama without exact locality. (D.R. PAULSON, 1982, in: S.H. Hurlbert & A. Villalobos-Figueroa, [Eds], Aquatic biota of Mexico, Central America and West Indies, pp. 249--277, San Diego St. Univ. Press.). P. litoralis was hitherto known only from the holotype male, Chiriqui province, western Panama (J. BELLE & D. QUINTERO ARIAS, 1992, in: D. Quintero & A. Aiello, [Eds], Insects of Panama and Mesoamerica: selected studies, pp. 91-101, Oxford Univ. Press, Oxford).

I thank NELIDA GOMEZ of Smithsonian Tropical Research Institute for support in Panama. STEFFEN FÖRSTER allowed me to use a draft of his Central American dragonfly key.

F. Suhling, Zoologisches Institut, Technische Universität Braunschweig, Fasanenstraße 3, D--38092 Braunschweig, Germany; e-mail: f.suhling@tu-bs.de