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EFFECTOS DEL INCENDIO DE 1985 EN LOS INVERTEBRADOS DE SIERRA NEGRA, ISLA ISABELA

Por: Sandra Abedrabbo

El incendio del sur de Isabela, ocurrido en marzo y abril de 1985, permitió evaluar su impacto en las comunidades de invertebrados y examinar los procesos de recolonización. En junio y noviembre del mismo año se hizo un chequeo preliminar de los invertebrados del área quemada y desde febrero de 1986 se empezó con muestreas sistemáticas en el sector de la pampa de Sierra Negra (1,100 m); puesto que fue una de las áreas más afectadas por el fuego, y homogénea en cuanto a vegetación y tipo de suelo.

Con el fuego los invertebrados soportaron una gran mortalidad, pero estos empezaron a recolonizar fácilmente el área quemada pocos meses después del incendio. Invertebrados pioneros como Orthoptera (grillos y saltamontes) y carnívoros oportunistas como Araneae (arañas) y Carabidae (escarabajos) fueron los que iniciaron el proceso. Posteriormente con la regeneración de la vegetación empezó la recuperación de los invertebrados herbívoros que dependen estrictamente de ella, como Homoptera (pulgonos) y larvas de Lepidoptera (mariposas).

La recuperación de los invertebrados en el área quemada está íntimamente relacionada con la restitución de la capa orgánica del suelo y la vegetación. En refugios esta fauna no fue casi alterada y se consideran "Islas" que ayudan a

reestablecer el equilibrio. La recuperación del área quemada de Sierra Negra ha sido bastante rápida, tanto en la recolonización de la vegetación como de los invertebrados. Se estima que en uno o dos años se puede tener una "estabilidad" de estas comunidades.

EFFECTS OF THE ISABELA FIRE OF 1985 ON THE INVERTEBRATES OF SIERRA NEGRA

The fire on southern Isabela in March and April of 1985 created the opportunity to study the impact of fire on the invertebrate community and the processes involved in recolonization. In June and November of 1985, a preliminary survey of the invertebrates in the burnt area was completed. Subsequently, in February 1986, systematic sampling was begun in the Sierra Negra pampa (1,100 m) because this was one of the areas most affected by the fire, and previously was one of the most homogeneous in terms of vegetation and soil characteristics.

The invertebrates suffered a high mortality as a result of the fire, but they readily began to recolonize the burnt area only a few months after the fire. Pioneer colonists such as orthopterans (crickets and grasshoppers), opportunistic carnivores such as

spiders, and carabids (ground beetles) were among the first to begin the process. Later, with regeneration of the vegetation, the recuperation began for the herbivorous insects such as homopterans (aphids) and larval lepidopterans (caterpillars).

The recuperation of many invertebrates is related to the recovery of the vegetation and the layer of organic material on top of the soil. In isolated

refuges, this fauna was almost unaltered; and these refuges can be considered like islands, which help in the reestablishment of the invertebrate community. The recuperation of the burnt area of Sierra Negra has proceeded rapidly, with the plants as well as with the insects. **Sandra Abedrabbo, Estación Científica Charles Darwin, Isla Santa Cruz, Galápagos, Ecuador.**

INTERNATIONAL SYMPOSIUM ON THE BIOGEOGRAPHY AND EVOLUTION OF THE MOLLUSCAN FAUNA OF THE GALAPAGOS ISLANDS

By: Matthew J. James

On 18 July 1988, an international symposium on the biogeography and evolution of the molluscan fauna of the Galápagos Islands was held during the 21st Annual Meeting of the Western Society of Malacologists (WSM). As president of WSM for 1988, I organized the symposium to bring together researchers with interests in the taxonomy, biogeography, and evolutionary history of the living and fossil molluscan fauna of the Galápagos. WSM maintains a long-standing tradition of emphasis on eastern Pacific molluscan faunas, both in its symposia and contributed paper sessions. The symposium was held in Darwin Hall on the campus of Sonoma State University in northern California, and consisted of 10 speakers who presented 12 papers in a daylong session.

Jack Stein Grove (Los Angeles County Museum of Natural History) spoke on "El Niño 1982-83 and new records of Indo-West Pacific fishes at the Galápagos." He reported that following the 1982-83 El Niño Southern Oscillation (ENSO) event, five species of Indo-West Pacific fishes were reported for the first time in the eastern Pacific at the Galápagos. These records indicate the importance of the El Niño phenomenon as an eastward transport mechanism across the equatorial Pacific.

Matthew J. James (Sonoma State University) spoke on the "Geological setting and Cenozoic molluscan paleontology of the Galápagos Islands." He outlined reasons why the volcanic nature of the Galápagos would not make them likely sites for fossilization, although scattered sedimentary deposits containing

molluscan remains provide a record of the ancient shallow-water marine fauna of the Islands.

William D. Pitt (California Academy of Sciences) and Lois J. Pitt (Sacramento, California) presented "Notes on the marine molluscan fossil deposits of the Galápagos Islands." They reported verifying the correct location of an important limestone deposit on Isla Santa Cruz which had been incorrectly relocated by workers subsequent to its initial report by Ochsner following the 1905-06 California Academy of Sciences expedition. Also of historical interest, they reported on the possible location of Charles Darwin's fossil locality at Cerro Brujo on Isla San Cristóbal which had not been previously relocated following Darwin's visit in 1835.

Sally E. Walker (University of California, Berkeley) spoke on the "Taphonomy of two Pleistocene terrace localities on the Galápagos Islands." She reported that molluscan fossils from Isla Isabela and Isla Santa Fé reveal different taphonomic histories and explained how evidence from clionid sponge borings and predatory snails, octopods, and crabs can be used to reconstruct the taphonomy of molluscan fossils.

Mitchell M. Colgan (University of California, Santa Cruz) spoke on "The Urvina Bay uplift: Biological and paleontological implications." He explained how the shallow-water invertebrate fauna stranded during the 6 m vertical uplift of a segment of ocean floor in 1954 provides a unique opportunity for study of not only "fossils in the making" but also the record of several previous El Niño events as