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LATE OLIGOCENE AMBER SALTICIDS FROM THE DOMINICAN REPUBLIC. Bruce Cutler

Amber has been known from the mountainous region of the Dominican Republic since pre-Columbian times (Sanderson and Farr 1960). This amber is rich in botanical and zoological inclusions. The plant inclusions most commonly seen are bits of decomposed woody tissue, but seeds, leaf fragments, and flowers also occur. The more unusual animal remains include small lizards, small frogs, large Lepidoptera, molluscs, and small scorpions. In personal examination of nearly 100 spider-containing amber pieces, the commonest arthropod inclusions were small Diptera, ants, and micro-Hymenoptera. Less commonly encountered were Coleoptera, Homoptera, Isoptera, Lepidoptera, and Trichoptera.

The amber itself is a retinite (fossil resin lacking succinic acid), most probably from a tree in the Leguminosae, possibly in the genus *Hymenaea* (Rice 1981). In some mines it is dug from micaceous lignitic sandstone (or arenaceous lignite) that is very friable (Sanderson and Farr 1960, personal observation). The age of the amber is currently considered to be Oligocene (Rice 1980, 1981). Earlier reports had considered the amber to be Miocene in age (Sanderson and Farr 1960).

Since the advent of plastics, amber has been extensively faked. Fortunately the tests for detecting imitation amber of all but the most sophisticated types are simple, inexpensive, and well within the performing grasp of any biologist. Also there has been relatively little fake amber from the Dominican Republic, because it is abundant, and the Dominican Republic government is determined to maintain the quality reputation of its amber. There are reliable dealers in the United States who stand by their product. In almost all cases, specimens are not provided with adequate stratigraphic data, in most cases only the mining district is noted, rarely the particular mine is associated. For details on the mines and mining methodology, see Rice (1980, 1981).

Specimen prices for spiders are based roughly on the size of the particular spider inclusion if alone, or on the other inclusions if present, and to a lesser degree on the amber block size. Scientific quality is often independent of price, a large but poorly preserved specimen is usually more expensive than a small but better preserved specimen. In 1982, prices in the United States ranged from twenty to several hundred dollars; most worthwhile specimens were in the fifty to one hundred fifty dollar range.

All spider inclusions seen were small, rarely over 5 mm long, and usually under 3 mm long. Most spiders seen were immatures, often very small spiderlings, 27% of all specimens of all families were adult a only 3% of all specimens were adult females. The nature of the fossilization often makes it difficult to determine mature females and some apparently immature specimens may be in fact females. Twenty-nine percent of all spiders were salticids, the commonest family, followed by theridiids. Schawaller (l981) in a report on Dominican Republic amber spiders in the Stuttgart Museum gives similar figures for the prevalence of salticids.

Most remarkably, this salticid fauna is essentially modern. I have adult representatives of *Lyssomanes*, *Nebridia* (sensu Bryant), *Thiodina*, and what appears to be a *Corythalia*. The *Lyssomanes* and *Corythalia* are new species, but similar to modern species. Although Petrunkevitch considered the Baltic amber salticids to belong to extinct genera (or even subfamilies), both Proszynski and Wanless (in litt.) have indicated that at least some of these

genera are extant Old World tropical genera. I have examples of such an "extinct" genus from a Tanzanian Pliocene amber. The major broad difference between all known amber salticid faunas and those of the present, is the absence of any known antlike salticid in the amber faunas. It is not obvious why this should be so; certainly the ant models were present. Salticidae are considered to be one of the most advanced spider families; however, it is obvious that diversity of the salticid fauna is not a recent event, but began at the latest in the early Tertiary. Many of the genera from the Tertiary have existed for a minimum of 40 million years. Indeed, most of the amber spider genera appear to be modern. We will probably have to seek the origin of modern spider faunas in the late Mesozoic, but we still await extensive Mesozoic arachnid fossil faunas. In the next few years, I hope to begin more detailed investigations in the New World amber salticid fauna. Perhaps the most critical information needed is better stratigraphic determinations of the amber-bearing beds.

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