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THE PALEOICHTHYOFAUNA FROM THE CODÓ FORMATION (APTIAN OF THE PARNAÍBA BASIN) NORTHEASTERN BRAZIL

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The Codó Formation occurs discontinuously over a wide area in the central-north of the Maranhão State, Northeastern Brazil. Predominantly carbonatic, this lithostratigraphic unit contains a diversified paleobiota, comprising plants (including pollen, spores and algae), crustaceans, gastropods, ichnofossils and fishes. The latter are numerous and correlate internal and marginal basins in Northeastern Brazil during the formation of the South Atlantic Ocean, in Western Gondwana. Eleven species are recognised: *Araripelepidotes temnurus*, *Vinctifer comptoni*, *Calamopleurus cylindricus*, *Cladocyclus gardneri*, *Brannerion latum*, *Rhacolepis buccalis*, *Tharrhias araripis*, *Dastilbe elongatus*, *Santanichthys diasi*, *Codoichthys carnavali*, *Axelrodichthys araripensis* and a lepisosteid. The material comes from four main localities in Maranhão State: Timbiras, Barra do Corda, Brejo and Codó, and was collected in open pits or along the banks of the main rivers draining the center of the Parnaíba Basin. Two specimens, Federal University of Rio de Janeiro – Department of Geology specimen UFRJ-DG 828-P and Research Center of Natural History and Archaeology of Maranhão specimen CPHNAMA-VT 1242 represent the first occurrence of lepisosteids in the Codó Formation. The morphology of the ethmoid region, and lower jaw, the relative proportions of the dorsal, anal and caudal fins, and ganoid scale morphology suggest affinity with genus *Obaichthys*. One specimen, UFRJ-DG 870P, includes about fifty individuals of *Santanichthys diasi* preserved in preferred orientation, on the same bedding plane, consistent with a mass mortality event. These findings confirm the hypothesis of a lacustrine environment for the Codó Formation, with fluctuating levels of oxygen, salinity, temperature, and algal blooms, sometimes resulting in mass mortality of lake populations. As additional discoveries of taxa add to knowledge of the Codó paleobiota, further analysis will provide a better understanding of the paleoenvironmental situation in the Early Cretaceous of Northeastern Brazil.