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Regular Poster Session III (Friday, November 14, 2025, 4:30 - 6:30 PM)

**Late Cretaceous (Turonian) hybodont (Chondrichthyes, Hybodontiformes) egg capsules from New Jersey, USA**

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Chondrichthyan egg capsules are known from several different taxa in the fossil record. Identifications are based on morphotypes and most specimens have been assigned to chimaeroids or hybodontiform sharks, however

specific taxonomic assignments are not possible. Here we report on multiple hybodont egg capsules (*Palaeoxyris* sp.) recovered from the Old Bridge Sand Member, Magothy Formation (Turonian age) of Middlesex County, New Jersey. The Magothy Formation is well-known for its lignite and amber deposits that have yielded insects, plants, fungi and feathers. The Old Bridge Sand Member has been interpreted as both point bar and delta-front facies. Based on the presence of the egg capsules and some marine fossils (oysters and bivalve steinkerns), this would suggest a delta-front facies for the locality, which is interpreted as a probable environment for some hybodont sharks.

The two capsules in the collections of the New Jersey State Museum are three-dimensionally preserved. They both exhibit a spiral collarette, beak, body, and pedicle but no tendril. The larger of the two, NJSM 27975 is more complete and is only missing the distal tips of the beak and pedicle, with an overall length of 99.4 mm and width of 26.6 mm. The second specimen, NJSM 27974, is less complete, missing the beak and the distal portion of the pedicle. The total length of the specimen is 69.2 mm, and it is 28.2 mm wide. NJSM 27974 is also broken in half lengthwise, exposing a hollow internal structure. These capsules were likely deposited in a brackish, deltaic environment where they would be anchored to plant material by tendrils. This type of occurrence may not be uncommon in the Magothy Formation, as there are other similar specimens verified from a nearby location in a private collection. They represent the latest geological occurrences (Turonian) of hybodontifom egg capsules published to date.

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