

1. Actinal spines of the adambulacral armature very long, equal, delicate, needle-like, and slightly curved. Pedicellariæ very small, resembling clavate papillæ. Infero-marginal plates with three spines, the lateral and median one long and equal, the inner one rather shorter. Rays long and gradually tapering. Paxillæ with no robust central spinelet, but sometimes two or three of the same size as the encircling series *africana.*
2. Actinal spines of the adambulacral armature, short, cylindrical, equal, delicate. Pedicellariæ very few, small, papilliform. Infero-marginal plates with three spines, the lateral and median one long and equal, the inner one smaller. Rays short and abruptly tapering. Paxillæ with a short robust central spinelet. *sarsii.*
- b. Adambulacral armature not forming a single transverse series continuous with the spines on the infero-marginal plates.
 - a. Paxillæ at the sides of the rays with a slightly quadrate character. A large pedicellaria accompanies the outer spinelet on the actinal surface of the adambulacral plates; the pedicellaria and spine standing as a pair side by side behind the single median and furrow spines *forficifer.*

Chorology of the Genus *Luidia*.

a. Geographical distribution:—

ATLANTIC: Ten species between the parallels of 65° N. and 40° S.

On the eastern side: *Luidia sarsii*, in the northern area, from the coast of Norway to the British Islands. *Luidia ciliaris*, from the Faerøe Channel in the North to the Mediterranean. **Luidia africana*, off the coast of Morocco and extending to the extreme southern point of Africa. *Luidia senegalensis*, off the west coast of Africa, and extending to the Antilles and Brazil.

On the western side: **Luidia clathrata*, extending from North Carolina, through the West Indian area, as far south as Brazil (Rio Janeiro). *Luidia elegans*, off North Carolina and in the West Indian area. *Luidia variegata*, in the Gulf of Mexico, off the mouth of the Mississippi. *Luidia convexiuscula*, *Luidia barbadensis*, and **Luidia alternata*, in the West Indian area, the last mentioned extending northward to the coast of Florida and southward to Bahia.

INDIAN OCEAN: Three species between the parallels of 30° N. and 10° S.

Luidia savignyi, in the Red Sea and off the east coast of Africa. *Luidia maculata*, in the Indian Ocean from the coast of Africa in