

The first and second annuli are broader and form a kind of a cephalic capsule. Twelve longitudinal rows of V-markings (costae) are present; the tip of the "V" is directed posteriad in the pharyngeal region, but antieriad in the rest of the body. One dorsal, one ventral, two lateral and eight submedian rows of V-like markings are present. The longitudinal ornamentation is weakly developed on the two "cephalic" cuticular annuli (obscure in some specimens); the ornamentation stops halfway along the tail.

The lips are very well developed but not heavily cuticularized; they can be easily in- or extruded. The six internal labial papillae are very minute; the six external labial sensilla are setiform (3 μm long) and are situated in the middle part of the lips. The four cephalic setae are 11 μm long and are situated at the basis of the lipregion (the first cuticular annulus has sometimes a small "indentation" for the placement of cephalic setae). Somatic setae are scarce. The amphideal fovea is circular, 6 μm diameter (28 % of the c.b.d.), and is situated on the second annulus (Fig. 4 B). The buccal cavity is well developed and heavily sclerotized; one big dorsal tooth, two smaller ventrosublateral teeth and a ventral row of denticles are present. Pharynx muscular with a prominent elongated terminal bulb which is divided into two parts; the pharyngeal tissue surrounds the buccal cavity completely and forms a pronounced swelling. Cardia 14 μm long. Nerve ring at 40 % of the neck length. Ventral gland and pore not found.

Diorchic with both testes well developed; the anterior testis is situated at the right side of the intestine, the posterior one at the left side of the intestine. The distal parts of the testes are filled with oval sperm cells from which one border is highly refractive. An ejaculatory gland cell opens in the cloaca and is situated at the right side of the intestine. Spicules equally long (31 μm) with a typical proximal bent. The gubernaculum is well developed and is longer (42 μm) and stouted than the spicules (Fig. 4 C). Prominent protractor and retractor muscles are present on the gubernaculum whilst the musculature of the spicules (especially the protractors) are weakly developed (and sometimes obscure). Two preanal modifications are present, *i.e.* two rectangular cuticular structures that are probably in connection with underlying gland cells.

The tail is cylindro-conical with a non-annulated tail tip. Three caudal glands are well developed and end together in a small, round ampulla.

Females

Resemble males in most aspects.

In ♀1, the cephalic annuli split up in several scales due to the longitudinal rows which are continuous with the rows of "V"-like markings (Fig. 4 E). The amphideal fovea is situated on the lateral scale of the second annulus.

DIAGNOSIS

Nudora gorbaultae sp. nov. is characterized by the broadened first and second cuticular annuli; the circular amphideal fovea situated on the second annulus; 12

longitudinal rows of V-like markings (costae) from the level of the cephalic setae to the middle of the tail ; two preanal cuticular modifications in the male ; shape of the gubernaculum.

DIFFERENTIAL DIAGNOSIS

Nudora goubaultae sp. nov. is very close to *Nudora lineata* (Cobb, 1920) ; latter species however has "two obscure supplementary organs, of which the anterior one is located at a distance in front of the cloacal opening equal to one and one-half body diameters, the posterior one being opposite to the middle of the spicule". *Nudora lineata* is further characterized by the presence of ten costae.

Nudora bipapillata Platt, 1973 is also very close to the new species because of the presence of the two preanal supplements. A marked difference is however that the first two cuticular annuli are not broader in *Nudora bipapillata* (no real head present).

DISCUSSION

Up to now, 11 species are described in the genus *Nudora* Cobb, 1920 ; in only four species (*i.e.* *N. bipapillata* Platt, 1973, *N. campbelli* (Schulz, 1935), *N. crepidata* Wieser, 1954 & *N. steineri* (Steiner, 1921)) are the anterior cuticular annuli not broader than the other annuli. In the other species of the genus (*i.e.* *N. armillata* Wieser, 1959, *N. besnardi* (Gerlach, 1956), *N. ilhabelae* (Gerlach, 1957), *N. lineata* Cobb, 1920, *N. nuda* Inglis, 1968, *N. omercooperi* Inglis, 1968 & *N. thorakista* (Schulz, 1935), is a kind of cephalic capsule developed because the first (1 & 2) cuticular annuli are broader than the others. This is also the case in *Nudora goubaultae* sp. nov. The number of costae varies in the last group between 4 and 6 (*N. omercooperi*) to 18-20 (*N. armillata*).

The presence of a lateral row of costae (allowing the recognition of the juveniles and females) is an important character, that differentiates the new species from the related species *Monoposthia mirabilis* (which lives in the same sites as *Nudora goubaultae* sp. nov.), but which lacks the lateral costae.

It is very probable that the gubernaculum has taken over at least partially the function of the spicule.

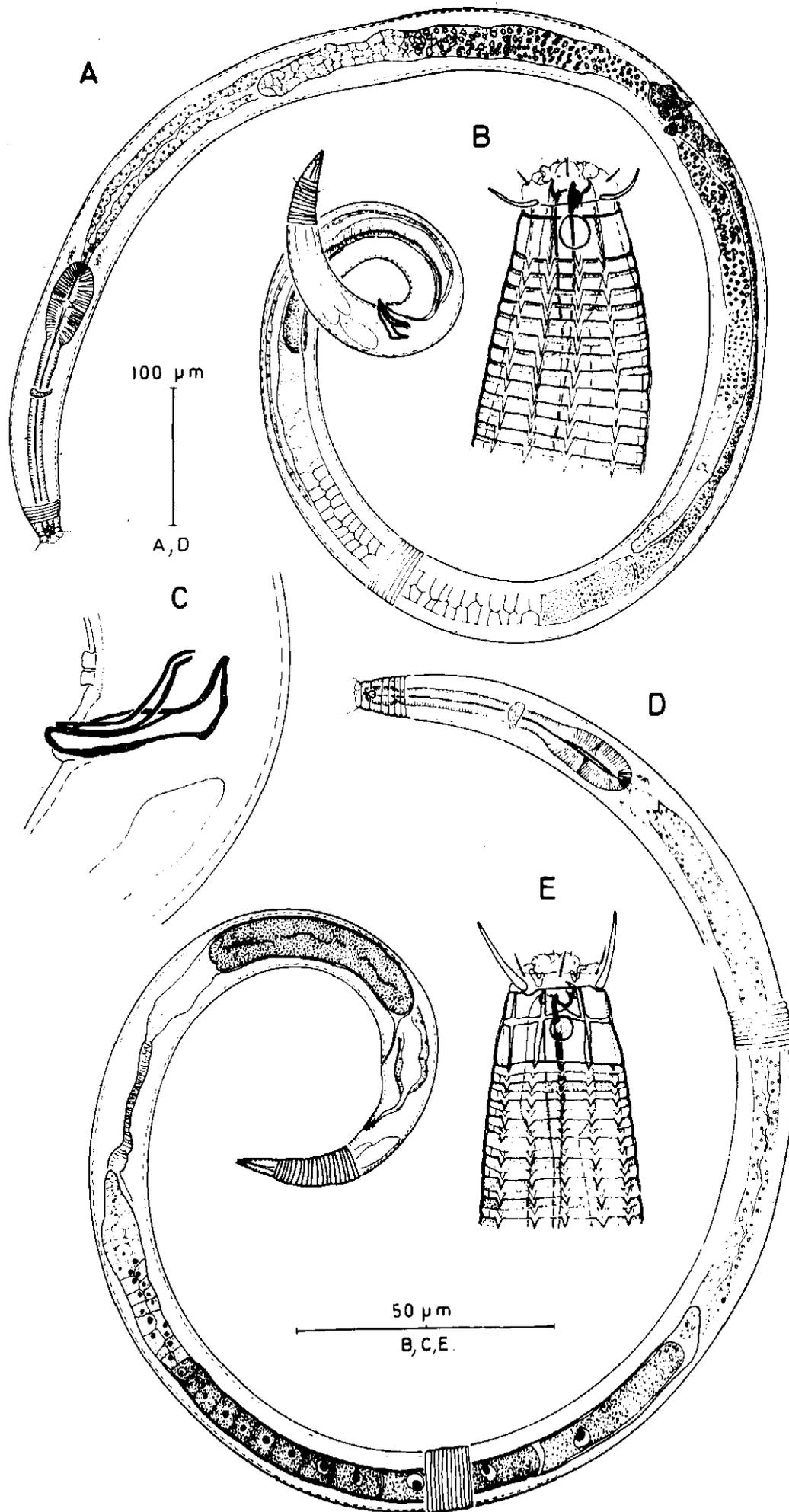


Fig. 4 - *Nudora goubaultae* : A. ♂, Total view ; B. ♂, Head end ; C. ♂, Copulatory apparatus ; D. ♀, Total view ; E. ♀, Head end.

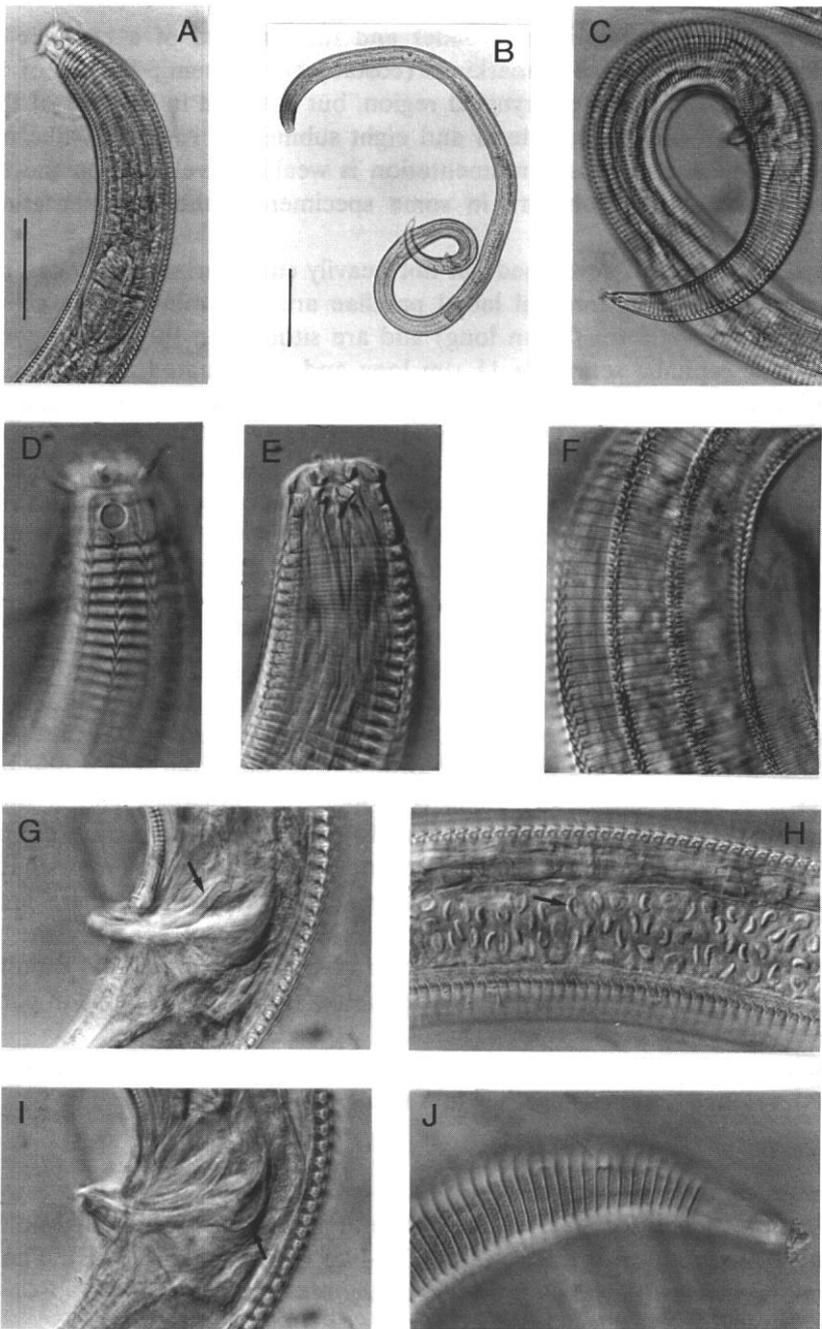


PLATE 2 - *Nudora goubaultae* ($\delta 1$). A. Pharyngeal region; B. Total view; C. Tail region; D. Head end; E. Buccal cavity; F. Cuticular ornamentation; G. Left spicule (arrow indicates spicule); H. Sperm cells (arrow); I. Gubernaculum (arrow); J. Cuticular annules on the tail tip.
 (Scale bar in B is 200 μm ; scale bar is 50 μm for A & C, and 20 μm for D to J).