DEFINITION OF THE FAMILY CRYPTOPHAGIDAE

Adult :

General appearance (Figs 10, 14, 185, 194, 205, 211, 225, 304, 313) more or less oblong, species usually smaller than Erotylidae and Languriinae Languriidae, usually pubescent and brown or ferruginous

Head (Figs 3, 117-126, 174, 197, 304) usually transverse, sometimes elongate, often with a fronto-clypeal suture (in Atomariinae), sometimes with a transverse line on vertex, rarely with stridulatory files on occipital region (in some species of Atomaria), antennal insertions lateral or on top of the head On ventral side gular sutures widely separated, frequently with a pair of longitudinal grooves originating from maxillary articulations and extending backwards for more than half of the length of gula, without antennal cavities or transverse grooves or pockets on anterior part of gular region Tentorium more or less as in Languriidae, with a narrow corpotentorium and laminatentorium Antenna 11-segmented, rarely 10-segmented, scape moderately developed, except in some Atomariinae, where scape rather markedly large, club usually 3-segmented, sometimes 2-segmented and rarely 1-segmented Mandible with well developed mola, with two apical teeth, one of them often dentate, cavities and tubercles absent Maxilla with well developed galea and lacinia, lacinia usually with two apical spines, galea rather narrow and hairy apically, palpi never aciculate or securiform Labium with mentum usually transverse, ligula rather poorly developed and palpi never aciculate or securiform

Prothorax (Figs 7, 79-116, 180, 201, 209, 272-283, 305) usually transverse, front angles sometimes with callosities, lateral margins often denticulate or serrate, pronotum often with prebasal impressions Front coxae usually moderately separated, cavities more widely open behind externally than in Languriidae,

sometimes internally closed behind, sometimes with a narrow lateral extension of the cavities which exposes a small part of trochantins

Elytra and Wings (Figs 8, 179, 184, 218, 292 297, 311) Elytra confusely punctured and usually covered with recumbent pubescence, strial punctures represented if at all, by only internal columns in rows, but never with scutellary striole, epipleura only distinct in basal half and obsolete behind Wing with 5 or fewer anal veins, never with anal cell, subcubital fleck and radial cell, but sometimes with r-m cross vein

Meso-Metathorax (Figs 9, 181, 202, 210, 216, 312) Mesocoxae more widely separated than front coxae, rarely narrowly so, cavities closed outwardly by sterna, sternal fitting between mesocoxae usually with two distinctly separated knobs sometimes in a short broad projection from metasternum and rarely in a straight line On the inner angles of mesoepimera usually with a small pocket and sometimes mesosternum with a pair of glandular pores Metasternum transverse, a pair of pocket-like cavities often present on anterior border of metasternum, sometimes with a pair of glandular pits on metasternum, hind coxae usually more widely separated than in Languriidae Metendosternite with a few exceptions has anterior tendons very narrowly separated, sometimes two tendons arising from a common stalk, lateral plates well developed but narrow.

Legs (Figs 183, 309) usually narrow and moderately long, trochanters with a few exceptions narrow, elongate and simple, femora swollen in middle, tibiae rather narrow and not notably broadened at apex and usually with two normal spurs, tarsal formula 5-5-5 in both sexes or 5-5-5 in male and 5-5-4 in female, rarely 4-4-4 in both sexes (Anathilopus), segments usually simple, sometimes more or less pseudotetramerous, claws simple

Abdomen (Figs 182, 203, 217, 310) with a few exceptions completely covered by elytra All ventrites freely articulated, ventrite 1 distinctly longer than

ventrite 2, rarely with femoral lines In resting condition tergite 8 hidden under 7 in both sexes, 7 pairs of spiracles, first 6 pairs situated on membrane above the pleural sclerites and 7th pair lying on outer edges of tergite 7 Aedeagus (Figs 48, 190, 196, 204, 242, 317) in resting condition oriented normally, with or without articulated parameres, but without median struts as found in Erotylidae and Languriidae Ovipositor paraprocts and valvifers often fused with coxites, styli attached at the apex of coxites

Larva

General appearance more or less elongate, parallel-sided, slightly flattened, usually pale and weakly sclerotised, pubescence usually not very dense or conspicuous

Head more or less prognathous, never with endocarina or metopic suture, frontal sutures more or less distinct and of Cucujoid form, ocelli 4 or fewer on each side, hypostomal rods distinct and more or less divergent Antennae nearly always 3-segmented, segment 1 transverse, 2 at least twice as long as 1, 3 rarely longer than 2, the sensory appendage ventral to it Mandible with 2 apical teeth, cutting edge more or less denticulate behind the upper one, prostheca more or less slender and rigid, pointed and often bifid at the apex, mola well developed, aseptate but never ridged, ventral crushing tubercle distinct Maxilla with falciform mola, very rarely slightly obtuse, a dorsal row of strong setae along its inner edge, dorsal groups of denticles usually present on base of mola, palpiger, stipes and sometimes 1st palp segment A rounded sclerotised protuberance often present on inner edge of stipes, cardo well developed, indistinctly divided, maxillary articulating area oval, well developed Labium free as far as base of mentum, palpi 1- or 2- segmented, hypopharyngeal sclerome well developed, usually with strong anterior horns

Thorax with prothorax longer and often slightly narrower than meso- and meta-thorax, front coxae considerably less widely separated than middle and hind

ones, the latter separated by about their own width Spiracles annular or bicameral, situated just behind front margin of mesothorax Legs moderately long, claws with 2 simple setae, variously placed

Abdomen with segments 1-6 similar in size, shape and vestiture, 7, 8 and 9 similar in length to 6 but usually progressively narrower, tergite 9 usually with simple upturned urogomphi, pre-gomphal tubercles sometimes present, segment 10 forming a short ventral pygopod, without hooks or other armature Spiracles annular or bicameral, sessile or situated on short projections

Larva known Cryptophagus, Henoticus, Atomaria, Ephistemus Larvae of Paramecosoma, Micrambe and Caenoscelis have been described in the unpublished Thesis of Sen Gupta (1967)

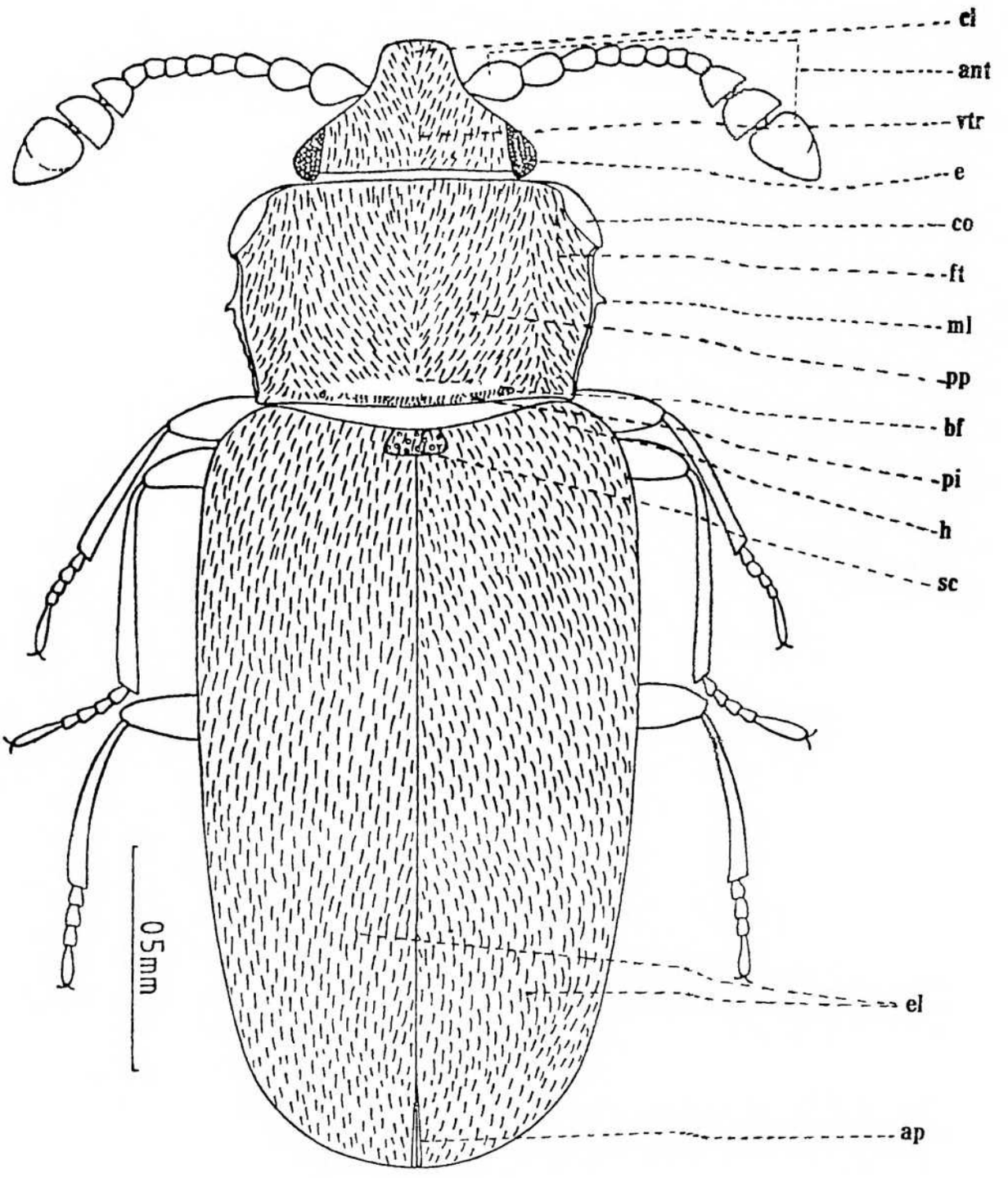

Fig 1 Cryptophagus sp (Herbst) Dorsal view

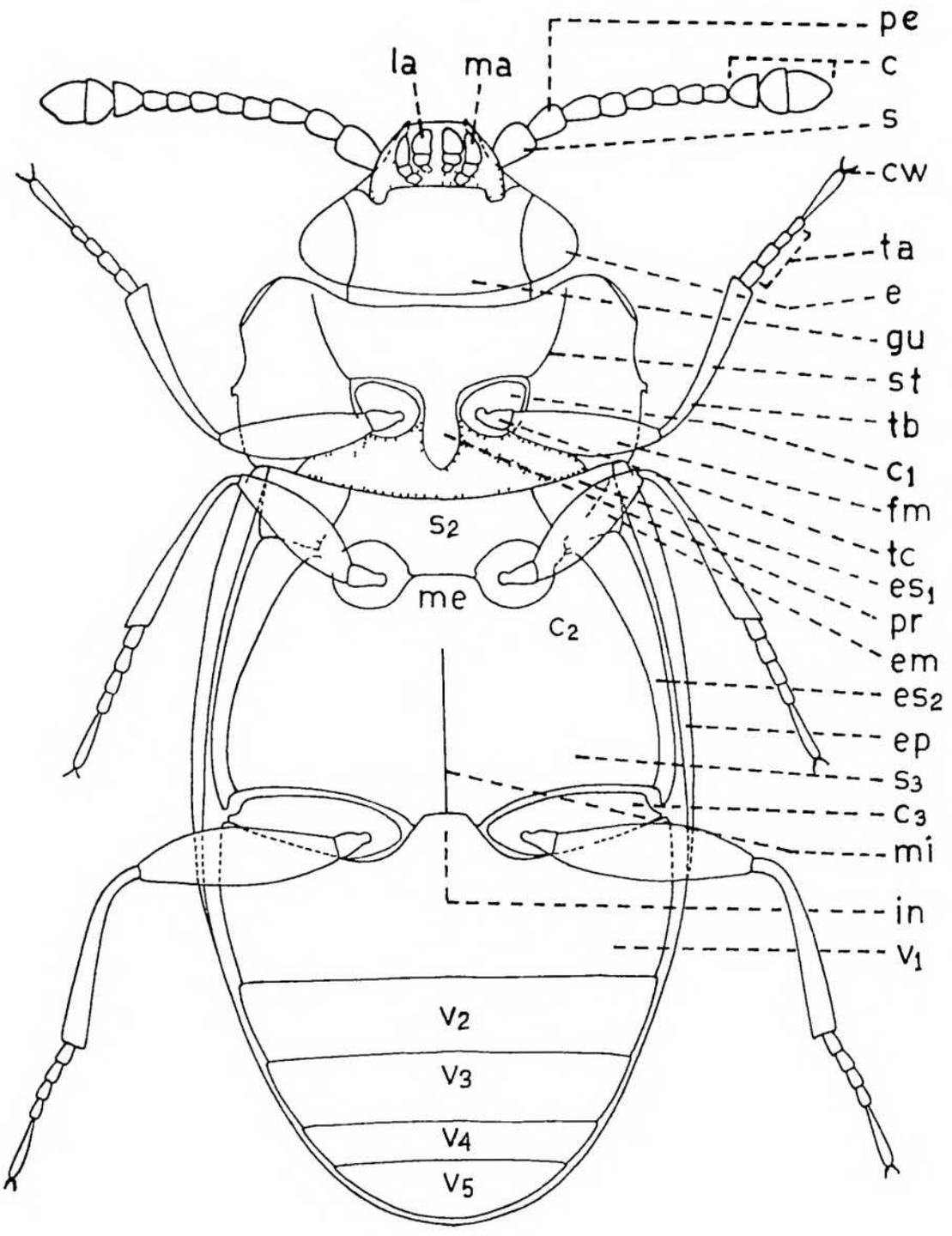

Fig. 2 Cryptophagus sp Herbst : Ventral View