REMARKS: While examples in which the filling is structureless can be identified as *Planolites* (Häntzschel, 1962: W210), those examples which appear to be segmented and possibly those with arched transverse laminae may be better compared to *Scalarituba* (Häntzschel, 1962: W215). Trace fossils of these kinds may have been made by animals similar to but smaller than those responsible for *Scolicia.*

In a few instances this type of trace fossil is sharply demarcated from the enclosing sediment (Pl. 4, Fig. 1) and tends to break out in cylindrical segments of irregular length—a phenomenon also observed in some vertical burrows (*infra*). Here the filling is always structureless. This particular form can be referred to as *Cylindrites*—a general name for non-vertical, cylindrical burrow fillings (Häntzschel, 1962: W190). Here it is thought that the animal lined the wall of its burrow with sand grains cemented by mucus.

Planolites sp. b

MATERIAL: Block of silty sandstone (X14) with parts of a number of trails on limonite-stained surface.

LOCATION: Grid reference N38/283867, Little Manly; common at other localities.

DESCRIPTION: Small, simple, non-branching, irregularly meandering burrows and " flattened " impressions which have uniform widths of up to 4–5mm and extend for maximum measured distances of 12cm are common in many siltstones and with *Chondrites* (see later) are the only form at all abundant in the sequences in which thick turbidites alternate with thin siltstones. Size alone sharply distinguishes it from *Planolites* sp. a. The filling is structureless and is often a light-coloured powdery silt that contrasts strikingly with the enclosing sediment (e.g., Pl. 4, Fig. 2), although in some instances it is emphasised by limonite staining. Most examples of *Planolites* sp. b are orientated more or less parallel to bedding.

REMARKS: While *Planolites* sp. b is not strictly comparable with Ballance's (1964) Type C, for the latter branches, they also may have been produced by some small gregarious sediment-eating " worm " although in all probability the burrowing activities of more than one kind of small animal were responsible. Occasional trace fossils of this generalised form appear to have been infilled from above—evidence suggestive of their having been domicile burrows of hemisessile and possibly filter-feeding organisms rather than vagile sediment-eaters, the burrows being infilled upon death of, or vacation by, the occupant. There is never any evidence of either " species " of *Planolites* being packed with faecal pellets.

Ichnogenus CHONDRITES Sternberg 1833

DIAGNOSIS: Regularly ramifying tunnel systems; plant-like appearance; size variable.

MATERIAL: Fragmentary impressions on surface of small block of siltstone (X15).

LOCALITY: Grid reference N38/328909, Army Bay; common at other localities.

Chrondites sp.

DESCRIPTION: Small, non-meandering, cylindrical, and " flattened " borings which seldom exceed 3mm in width and typically occur in clusters (Pl. 4, Fig. 3), distinguished from *Planolites* sp. b, with which they are commonly associated, on their branching (both irregularly and dichotomously) habit and failure to display a preferred orientation parallel to bedding. These borings are filled with material identical to that described under *Planolites* sp. b.

Although the regular ramifying, plant-like tunnel systems considered characteristic of the somewhat variable trace fossil *Chondrites* (see, e.g., Simpson, 1957 and also Häntzschel, 1962: W190) were recognised on rare occasions only (e.g., Fig. 3) the nondescript borings illustrated in Pl. 4, Fig. 3 are also referred to this ichnogenus.