The number of teeth above the main fang is difficult to assess with light microscopy and can only be assessed with a frontal view of the hook, which can be difficult to obtain. The number of teeth seen in profile view may not accurately indicate the number of rows of teeth since in most slide preparations the hook is actually slightly rotated; in that case, teeth that occur in the same row may appear separate above the main fang, and may give the false impression of different rows.

Some authors have pointed out that setae may change during ontogeny, and that specimens of the same species have the potential to be identified as different genera during immature or adult stages using current generic definitions based on the number of thoracic segments and setal distribution (Warren 1991, Blake 2000). Some species have a fixed number of setigers with capillary setae from juvenile to adult stages. Other species have a variable number of setigers with capillary setae between juvenile and adult stages. In a some species, the number of setigers with capillary setae is variable among adult specimens. There has been an inconsistency in the literature regarding the taxonomic importance of the variability in setal distribution. Numerous monotypic genera have been erected to accommodate species that vary in the number of setigers with capillary setae. In this author's opinion, that convention should be discontinued, and all generic diagnoses based on setal distribution should be critically reviewed.

Branchiae. Branchia may occur on abdominal segments of some species. Branchiae have been used as a differentiating character to define some genera. Other genera may include both species with and species without branchia. Branchiae may include branched or simple digitate protruberances, or in some cases parapodial lobes have been referred to as branchia. The repiratory function of parapodial lobes has been largely inferred in existing literature without reference to blood vessels or physiological investigation. Branchiae may or may not be associated with noto- or neuropodia. The location and appearance of branchiae are diagnostic at the species level. The use of branchiae as a generic level character deserves additional evaluation.

Pygidium. Most species descriptions have been based on anterior fragments. Key features of the pygidium include presence or absence of caudal cirri, anal plate, asetous pre-pygidial segments, and/or occurrence of spines. Examination of several species of *Scyphoproctus* from Thailand indicates that the number of spines in the anal plate is not a fixed character for species of this genus and may be somewhat size dependent.

Glands. Methyl green stain has been used to highlight the distribution of gland cells in the epidermis in maldanids (Green 1987, 1991, 1997), and this technique also has been used to stain capitellids (Ewing, personal communication; Warren et al. 1994; Blake 2000). Methyl green stain was found to be useful for evaluating characters such as lateral organs and genital pores and for discriminating species represented in the Thailand material. However, variations in methyl green stain was found to occur among specimens of the same species and similarities in stain were observed among different species. Therefore, staining patterns should never be used as the sole method of identification and should be used in addition to conventional character analyses. To