

INDICATION OF MOUNTING MEDIA INFORMATION^{1,2}

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ABSTRACT: The vast array of mounting media currently being used for slide mounts of arthropods makes it imperative that mounting media be precisely indicated with specimens and in publications. Information should also include the solvent and date of mounting. Such information is necessary for specimen study, curation, and remounting, and is especially important for type specimens.

The recent development of a wide variety of slide-mount media for arthropod preservation gives rise to an urgent need for incorporating medium-related data in the preparation and designation of such specimens (or parts thereof), particularly of type specimens. Recommendations for procedures must be clearly addressed because of taxonomists' increasing use of slide mounted and embedded materials.

Prior to the burgeoning development of the newer media, balsam was used in most slide preparations. Today taxonomists may use any of several acceptable media depending on requirements of the particular taxonomic group, ease of use, personal preference, and other criteria. Frequently a taxonomist will change preferences over time, thus perhaps using many different media in study materials.

The taxonomist must also vary medium usage with specimen usage, as media will variously affect specimens, their characteristics, and the ability to interpret them. For example, Hoyer's or some other medium with similar clearing properties and compatibility with acids or bases may be routinely used by a particular specialist unless permanent storage is needed, when a longer-lived, more stable medium such as Euparal® or other hydrophobic type may be used (cf/Wilkey, 1977). Too much clearing or not enough clearing action may prevent certain characteristics from being studied, just as a refractive index near that of chitin may prevent clarity of setal and surface characteristics (Christiansen and Bellinger, 1980; Salmon, 1951 and 1954).

The taxonomist should select a medium carefully and indicate the medium used. Without such information, others who may have to work with the specimens in the future may not be able to interpret effects peculiar to the medium. Such information is also necessary for dissolving the medium when remounting is required, and an appropriate solvent should also be indicated. Remounting is undertaken i) so that characteristics (often newly discovered ones) may be examined, ii) as part of long term slide curation, iii) for improving permanency, or iv) for collection restoration.

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Given the necessity for information on mounting media, we make the following recommendations: For general collections of slide mounted material, data on media should be routinely added to the data label. This could be done, for example, as a line following locality and collection data that would denote the medium used, the appropriate solvent, and the date of preparation. A similar practice should also apply to embedded parts associated with pinned insects, such as Coleoptera genitalia mounted on clear acetate attached to the pin of the whole specimen (cf. Johnson, 1982; Smetana, 1971). Slides bearing type specimens or parts thereof could have any important information, including data on the medium, permanently etched into the glass in addition to the usual label. Important information such as the general locale (country, state, county), mounting medium, solvent, and date of preparation could be appropriately etched under one label area, and type status, genus, species and author under the second label area. The etching could reside under a label or on the back of the slide and could be highlighted with ink.

Data on mounting media should also be available in taxonomic reviews and revisions, and especially with species descriptions. Whenever type specimen data are given, data on mounting media should be included as standard procedure if embedded or slide mounted materials are involved. Certain workers have recognized the importance of this and routinely publish such information (e.g., Braasch, 1980; Johnson, 1982; Puthz, 1974; Smetana, 1971). An excellent format is that of Puthz (1974) including both the medium and its solvent: (p. 916) "Both syntypes have been mounted anew, the aedeagus of the male (internal sac everted) embedded in Euparal® (soluble in alc. abs.) on a strip of celluloid." We hope all taxonomists will adopt these recommendations to aid curators and future researchers, and for the general welfare of collection resources.

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