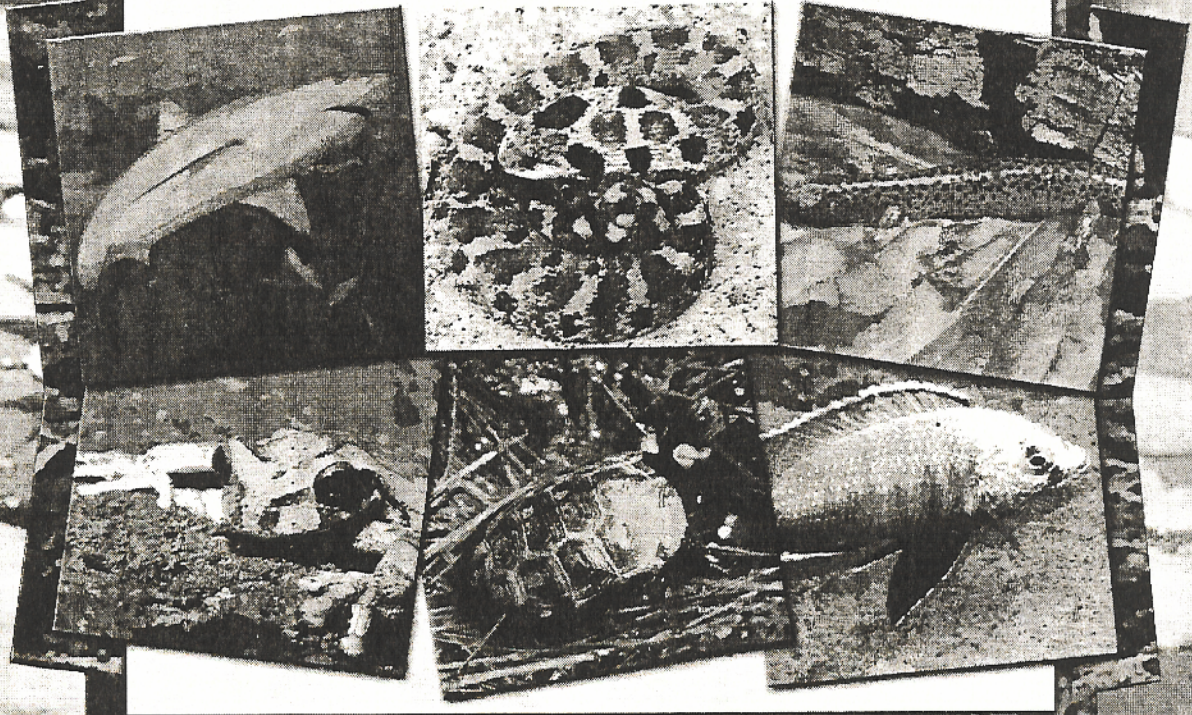


Program Book and Abstracts

Joint Meeting of Ichthyologists and Herpetologists



81st annual meeting of the American Society of Ichthyologists & Herpetologists
17th annual meeting of the American Elasmobranch Society

PENNSTATE



Hosted by The Pennsylvania State University
State College, Pennsylvania, USA

July 5–10, 2001

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Scales not necessary: the evolution of scalelessness among troglomorphic fishes

Anecdotal evidence have suggested in the past that simplification or loss of scales may be one of the troglomorphic features characterizing hypogean fishes. We investigated the presence and/or absence of scales among 423 families of fishes. All families were categorized as "have scales," "do not have scales," or "mixed" (some species have scales, some do not). We could not find reliable information on the scales for 22 of them, usually small, little known families. 257 have scales (64.0%), 117 do not have scales (29.2%), and 27 were mixed (6.7%). There are 18 families of fish with troglomorphic representatives. Of those, seven (38.8%) families have scales, seven(38.8%) do not, and four (22.2%) contain both scaled and scaleless species. Our results suggest that simplification and/or loss of scales is a common feature among troglomorphic fishes but that the lack of scales in the family as a whole cannot be considered a preadaptive feature. (Session 29, Monday, July 9, Penn Stater, Room 105, 11:15)

Page 114