

*clamospongia* was only a larger, relatively narrow-headed variant of *unidentata*. The unique type of *S. fusca* was more puzzling, being a rather large *louisianae*-like worker with fairly broad head and longish mandibles, but having the posterior half of the first gastric tergite nearly completely smooth and definitely shining. Var. *brevicornis* turned out as expected: a large *louisianae* female fitting fairly well with the largest worker forms from South American samples of the species, so that my earlier synonymy was confirmed.

In addition to these types, I have been able during the last few years to examine an increasing accumulation of *louisianae*-related forms from southeastern Brazil and northern Argentina, and scattered specimens have even come in from central Brazil and Surinam, previously blanks on the map. These samples are due mostly to the kindness of Father Borgmeier and Father Kempf. Study of this new material has completely changed my ideas on relationships of the species within the *louisianae* complex. First, the relatively slender, long-mandibulate forms with shining gastric dorsum were shown to be common in southeastern Brazil; it is these forms to which the names *unidentata* and *clamospongia* have been applied. Taken in combination, the distinctive "*unidentata* characters" give the impression of a distinct species inhabiting southeastern Brazil, but all attempts to define a species with these characters have failed. The reason for this failure is that the new material clearly shows that each of the characters going to make up the *unidentata* in its "typical" manifestation actually has its own independent pattern of geographical and individual variation within *louisianae*. The long mandibles (MI up to 67) of the southeastern Brazilian samples are approached by samples from Bolivia (MI 60-63), and some series from southeastern Brazil have much shorter mandibles (MI as low as 56, and perhaps even lower in some samples seen but not measured), in this respect being not far from average for the species *louisianae* taken as a whole. The gastric sculpture of the *unidentata* pattern, in which basigastric costulae of moderate length are followed by a smooth or nearly smooth, shining surface (though this surface may be obscured by secretion or other foreign matter), is not confined to southeastern Brazilian specimens with long mandibles; in fact, it is found in series with much shorter mandibles from localities as far away as Tucuman, in northern Argentina; Goias, Amazonas and Surinam in the northwest and north; and even in southern Mexico (Veracruz, Puebla). Furthermore, certain series even in southeastern Brazil contain workers with shorter mandibles, some individuals of which have the reticulate, opaque "*louisianae* sculpture", while others from the same nest sample have