

that any well-accredited scientists who feel so disposed may investigate it at their leisure.

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THE FUTURE OF TAXONOMY

THERE is one point in Dr. Mickel's interesting discussion¹ which seems to need further comment. He refers to the small group of taxonomic workers in Washington, "flooded with specimens of insects sent in from all parts of the country for identification, so that the amount of time that can be spent in actual research is exceedingly small." Also to the specialist on Coccidae "so loaded down with routine identification work and administrative duties that he has practically no time for research." Whatever may be said concerning the ability or industry of particular workers, we are here concerned with a matter of policy, and criticism must be directed to those "higher up"—ultimately to the highest power, the people of the United States, who permit such things to be. The truth is, however, that in the long run, even with existing facilities, it would pay to do much more revisional or monographic work. Only a few days ago I received a letter from a worker in the National Museum, explaining the difficulty of conducting exchanges, because so many of the species of a certain group were erroneously identified. Without revisional work, the museum collection may well be a source of error. Specimens come in from many workers, and it is impossible to check up the identifications as they are put away. Even specimens labeled "type" can not always be trusted, as has been shown by a National Museum specialist in a paper just published. Then again, in the absence of adequate monographs, entomologists give up the idea of determining their species, and at the same time the idea of studying them. Consequently, even when they receive names for their specimens, they often do not know the species, and will not recognize them again. The practice of wholesale determination of specimens has faults analogous to those of indiscriminate charity.

On the other hand, if, with enlarged resources, we went to work cooperatively to monograph our fauna, we could enable serious students to work up their own materials. They would, of course, find difficulties, and would be entitled to assistance from the museum or bureau, after they had tried to help themselves. This assistance would be cheerfully given, with the knowledge that it would promote study, instead of preventing it. Identifications, based on revisional work and not on the labeling of specimens, derived from various sources, in the collection, would be far

¹ Clarence E. Mickel, "The Future of Taxonomy," SCIENCE, 71: 436, April 25, 1930.

easier and more accurate. Time would be saved for all concerned, except those who have been in the habit of requiring a specialist to do their work for them. Broadly, then, we need more constructive imagination.

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INACTIVITY OF CHICORY¹

RESULTS previously reported² indicated absence of stimulative effect of infusions of chicory on isolated intestinal segments. Later repeated observations of no gastro-intestinal response in intact rabbits, dogs and guinea-pigs to massive doses of such infusions seem to indicate further that chicory, in the form used as a beverage ingredient, probably has no laxative effect.

Such a quantity of the root is popularly consumed that it was thought worth while to investigate other possible actions. A careful series of urine secretion determinations in man (myself) and guinea-pigs have yielded, without exception, quantitatively negative results. Intravenous or stomach tube administration of as much as 60 cc of a 20 per cent. infusion produced no observable effect or discomfort in intact guinea-pigs. Substitution of an alcoholic extract (evaporated to alcohol-free) for the infusion made no difference in the complete negativity of the findings.

The only indication of a possible drug action encountered was a tetanus-like hyperexcitability of frogs which had received the relatively tremendous dose of 2 cc of a 20 per cent. evaporated tincture (roughly equivalent to 5,600 cups of an average coffee-chicory blend in man). Administration of virtually unlimited dosage failed to elicit any comparable effect in mammals. It seems quite probable that chicory has no particular pharmacological significance as used in coffee mixtures.

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CAN A CATFISH COUNT?

A BULLHEAD catfish (*Ameiurus nebulosus*) which had been maintained since babyhood in a twenty-three-gallon all-glass tank of still water with several others of its kind was between three and four years old when it evolved a method of entertaining itself that may be called unique considering the general absence of a spirit of play in this group of fishes.

A single spray of Canadian water-weed (*Anacharis*) trailed about a foot from the main plant, touching the glass at the rear of the tank (i.e., the side

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² C. Reynolds, *Proc. Soc. Exp. Biol. and Med.*, 25: 696, 1928.