

On collecting trips as many as five or six were carried alive in the closed hand on several occasions with no effort on its part to bite.

These spiders seek concealment usually beneath boards, logs, bark and stones. They are easily reared from the cocoons, and if one is dropped on the floor of a box with a female she proceeds to suspend it in a web and watch over it. The process is repeated if others are dropped about, showing a rather marked solicitude for the nest.

The writer has liberated swarms of the young in an old woodpile near his garden, with no fear of being bitten. Much has been written within recent years about the evil ways of this spider, but there is little reason to fear its attacks and no reason to wish that it could be exterminated. In truth the writer has no desire to exterminate unconditionally even the rattlesnake or copperhead in its wildest haunts, so marvelously has nature designed the rattlesnake more especially, and in the New World alone. The true naturalist feels no cynicism because nature has placed these in our midst and would not rejoice at their complete extermination.

H. A. ALLARD

WASHINGTON, D. C.

#### THE SIMILARITY OF ACTION OF MALE HORMONES AND ADRENAL EXTRACTS ON THE FEMALE BITTERLING

IN a recent issue of *SCIENCE* the observation was reported by Barnes, Kanter and Klawans<sup>1</sup> that crude ether extracts of adrenal cortex can initiate the lengthening of the ovipositor of the female bitterling. It was also stated that crystalline androsterone did not produce a positive reaction with these fish. Both of these observations would seem to cast doubt on our contention that the phenomenon in question is evoked by the male hormone.<sup>2</sup>

We wish to point out that such a conclusion is not necessarily true. In the first place, the failure to get a positive reaction with crystalline androsterone in one experiment using two fish is hardly convincing. We have performed many experiments with crystalline synthetic androsterone and have seen a number of positive reactions.<sup>3</sup> Positive reactions are usually, although not always, obtained when the optimum dose and a suitable menstruum are employed. Synthetic testosterone<sup>4</sup> also has been found effective.

But how does the action of adrenal cortical extract harmonize with the male hormone hypothesis? Reich-

<sup>1</sup> B. O. Barnes, A. E. Kanter and A. H. Klawans, *SCIENCE*, 84: 310, 1936.

<sup>2</sup> I. S. Kleiner, A. I. Weisman and D. I. Mishkind, *Jour. Am. Med. Assn.*, 106: 1643, 1936.

<sup>3</sup> I. S. Kleiner, A. I. Weisman and D. I. Mishkind, *Proc. Soc. Exp. Biol. and Med.*, 35: 344, 1936.

<sup>4</sup> I. S. Kleiner, A. I. Weisman, D. I. Mishkind and C. W. Coates, *Zoologica*, 21 (Part 4): 241, 1936.

stein<sup>5</sup> has obtained a substance from the adrenal cortex which is capable of stimulating comb growth in the capon, *i.e.*, a compound resembling androsterone physiologically. Mason, Myers and Kendall<sup>6</sup> have oxidized a cortical substance, similar to cortin, into a ketone which also has the stimulating effect on the capon's comb. It thus appears that adrenal cortex contains one or more substances resembling androsterone. These, from our experience, would be expected to have the effect on the female bitterling which Barnes, Kanter and Klawans have found.

The relationship of the adrenals to secondary male characteristics has long been recognized. It is to be hoped that the interesting facts referred to in this note will lead to more definite knowledge in this field.

ISRAEL S. KLEINER

ABNER I. WEISMAN

DANIEL I. MISHKIND

THE DEPARTMENT OF PHYSIOLOGY  
AND BIOCHEMISTRY  
NEW YORK MEDICAL COLLEGE

#### PARTHENOGENESIS IN THE GRASSES

IN the November 13th issue of *SCIENCE* the article on the "Possibility of Parthenogenesis in Grass" suggests that it may be the first report of parthenogenesis in the grasses. There are, however, at least three reported cases: The first by J. De Coulon, "Nardus stricta. Etude physiologique, anatomique et embryologique," *Mem. soc. Vaudoise sc. nat.*, 1: 245-332, 1923; the second by E. F. Gaines and H. C. Aase, "A Haploid Wheat Plant," *Amer. Jour. of Botany*, 13: 373-385, 1926; the third by Helge Stenar, "Parthenogenesis in der Gattung Calamagrostis," *Arkiv. für Botanik.*, 25: 1-8, 1 Taf., 2 fig., 1935.

E. L. STOVER

EASTERN ILLINOIS STATE TEACHERS COLLEGE

#### ALKALIZE, ALKALINIZE AND ALKALIFY

THREE words are recorded in standard English and American dictionaries to denote the operation of making a material alkaline. These words are "alkalize," "alkalinize" and "alkalify." The word "basify" appears too, but it is defined as meaning "to make into a base by chemical means," which is not equivalent to the other three. Although direct analogy would suggest "alkalinify" as the opposite of acidify, this word is not listed at all.

While acidulate and acidify are familiar enough, the nearly universal practice among chemical writers is to say "add alkali until alkaline" or something equivalent, rather than use the less cumbersome words, alkalize, alkalify or alkalinize. Perhaps if it were known

<sup>5</sup> T. Reichstein, *Helv. chim. acta*, 19: 223, 1936.

<sup>6</sup> H. L. Mason, C. S. Myers and C. C. Kendall, *Jour. Biol. Chem.*, 116: 267, 1936.