foreign countries. The National Organization for Public Health Nursing will meet with the association in 1937 for the first time. This organization will, it is expected, add another thousand members to the registration lists. The following related societies will meet with the association as usual: The American Association of School Physicians; International Society of Medical Health Officers; Conference of State Sanitary Engineers; Conference of State Laboratory Directors; Association of Women in Public Health and Delta Omega. Dr. Reginald M. Atwater is the executive secretary of the association, and the headquarters offices are at 50 West 50th Street, New York, N. Y.

DISCUSSION

THE DISTRIBUTION OF BLACK WIDOW SPIDERS

IN a recent article by D. C. Lowrie[1] the geographic distribution of the black widow spider, *Latrodectus mactans* (Fabr.), is discussed. The author adds Indiana to the list of states from which the spider is known and refers to the records given two weeks previously by L. H. Townsend[2] for Illinois and Oregon as though they were the first for those states. Moreover, he makes a statement to the effect that it has not yet been recorded from the following states: Minnesota, Iowa, Virginia, Delaware, New Jersey, Connecticut, Rhode Island and Vermont. A few weeks later Jeffers[3] recorded the spider from Virginia. There is no doubt that it occurs in all these states, as it has been found in the regions bounding them. As a matter of fact, records for some of them have been available in entomological literature. For the benefit of those interested who may not have access to this literature I repeat them here.

For Virginia the spider was first recorded by J. H. Emerton[4] in 1875, from Hog Island. It has also been recorded as abundant in the Norfolk area by L. D. Anderson and H. G. Walker,[5] and from various localities by C. R. Willey.[6] Moreover, Dr. Bogen[7] cites cases of arachnidism from this state and gives three medical references. In a supplementary paper[8] two more references are added.

For Illinois the spider has been recorded by W. J. Spicer[9] from near Pittsfield, near Springfield and from Barry. For Oregon, by H. H. Stage[10] from Klamath Falls, and by D. C. Mote[11] from Roseburg and elsewhere.

For New Jersey the spider has been recorded by C. H. Hadley[12] from Moorestown, and by R. C. Cassel-bury[13] from near Ocean City. For Rhode Island a specimen from Cranston has been recorded by A. E. Stene.[14] Specimens have been collected in Connecticut at Killingworth on May 16, 1933, by Dr. A. Petrunkevitch; at North Plains on October 28, 1934, by Dr. S. C. Ball; at Norwichtown on June 25, 1935, by A. Latham, and at Leetes Island on September 29, 1935, by D. S. Riggs. These have all been recorded by Dr. W. E. Britton.[15]

In addition to the above the following records are published for the first time. In Connecticut a specimen was taken by P. G. Howes at Stamford in 1912; by V. R. Short at Westbrook on June 8, 1935; by Mrs. W. Harrington at Woodbridge on October 7, 1936; by Mrs. I. J. Longo in Bridgeport on September 15, 1936, and two were found by D. S. Riggs in the nest of a mud dauber wasp at Cheshire on August 19, 1936. In Vermont specimens were collected in June, 1935, by Miss E. B. Bryant at Brandon and by C. H. Paige at Woodstock.

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THE BLACK WIDOW SPIDER IN VIRGINIA

AS G. W. Jeffers states in SCIENCE for December 11, 1936, it is rather surprising that the black widow spider *Latrodectus mactans* has not been recorded officially in Virginia, although this is the case, according to D. C. Lowrie in SCIENCE for November 11, 1936. Jeffers finds it fairly common at Farmville, Va., and concludes that it probably occurs elsewhere in the state.

The writer has found it under boards at Arlington Farm, Va., near Washington, D. C., in the Alleghenies at Camp Todd, Augusta County, Va., at 1,000 feet, and at the foot of Walker Mountain near Deerfield, Augusta County, Va., all within the last two years.

Many years ago the writer found it very abundant at Thompsons Mills near Hoschton in northern Georgia. At this time little mention was made of this spider and the writer strongly doubted the venomous nature of its bite. Several attempts were made to test its bite between the fingers, but he could not get it to use its fangs.

1 SCIENCE, 84: 437, November 13, 1936.
2 *Ibid.*, 84: 392–393, October 30, 1936.
3 *Ibid.*, 84: 533–534, December 11, 1936.
4 Occ. Papers Boston Soc. Nat. Hist., 2: 153, 1875. (In reprint of N. M. Hentz's "Spiders of the United States.")
5 *Insect Pest Surv. Bul.*, 12: 404, November, 1932.
6 *Ibid.*, 14: 296, November, 1934.
7 *Arch. Int. Med.*, 38: 623–632, November, 1926.
8 *Ann. Int. Med.*, 6: 375–388, September, 1932.
9 *Insect Pest Surv. Bul.*, 15: 419, November, 1935.
10 *Ibid.*, 14: 164, July, 1934.
11 *Ibid.*, 14: 209, August, 1934.
12 *Ibid.*, 15: 389, October, 1935.
13 *Entom. News*, 46: 260–261, December, 1935.
14 *Insect Pest Surv. Bul.*, 16: 306, August, 1936.
15 *Conn. Agr. Exp. Sta. Bul.*, 383: 350. April, 1936.

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.

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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[1] 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.[2]

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.[3] Positive reactions are usually, although not always, obtained when the optimum dose and a suitable menstruum are employed. Synthetic testosterone[4] also has been found effective.

But how does the action of adrenal cortical extract harmonize with the male hormone hypothesis? Reichstein[5] 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[6] 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.

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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. Vaudiose 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 Calamogrostis," *Arkiv. für Botinik.*, 25: 1–8, 1 Taf., 2 fig., 1935.

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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

[1] B. O. Barnes, A. E. Kanter and A. H. Klawans, SCIENCE, 84: 310, 1936.

[2] I. S. Kleiner, A. I. Weisman and D. I. Mishkind, *Jour. Am. Med. Asn.*, 106: 1643, 1936.

[3] I. S. Kleiner, A. I. Weisman and D. I. Mishkind, *Proc. Soc. Exp. Biol. and Med.*, 35: 344, 1936.

[4] I. S. Kleiner, A. I. Weisman, D. I. Mishkind and C. W. Coates, *Zoologica*, 21 (Part 4): 241, 1936.

[5] T. Reichstein, *Helv. chim. acta*, 19: 223, 1936.

[6] H. L. Mason, C. S. Myers and C. C. Kendall, *Jour. Biol. Chem.*, 116: 267, 1936.