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Termite Societies.—Professor B. Grassi and Dr. A. Sandias have investigated the nature and origin of the Termite society in *Calotermes flavicollis* and *Termes lucifugus*. A *Calotermes* colony may include (a) indifferent larvæ, capable of becoming soldiers or sexual members; (b) larvæ and pupæ of sexual members with rudiments of wings; (c) soldier larvæ and soldiers which may arise from a and b; (d) winged sexual insects; (e) a true royal pair with vestiges of wings; (f) larvæ of 'reserve' sexual members and the reserve kings and queens which arise from these. These last larvæ may be developed from a or from various stages of b.

In the *Termes* nest there is a special caste of workers and no distinctive royal pair. The society includes (a) very young indifferent larvæ; (b) larger larvæ and the workers and soldiers to which they give rise; (c) winged sexual animals; (d) various stages of reserve and complementary sexual animals.

The one type, that illustrated by *Calotermes*, is founded by a king and queen, who may be replaced by a pair of reserve royal individuals, *i. e.* by a 'neotænic' couple. The second less primitive type, illustrated by *Termes*, contains several 'neotænic' couples, while kings are only temporary; in this case the nest arises in a secession from an older colony.

One of the most interesting results concerns the influence of nutrition in producing polymorphism. Thus the reserve sexual members are fed not only in the larval state but afterwards from salivary secretion only, a nutritive diet which probably hastens the rapid development of the reproductive system.—*Journal Royal Microscopical Society*.

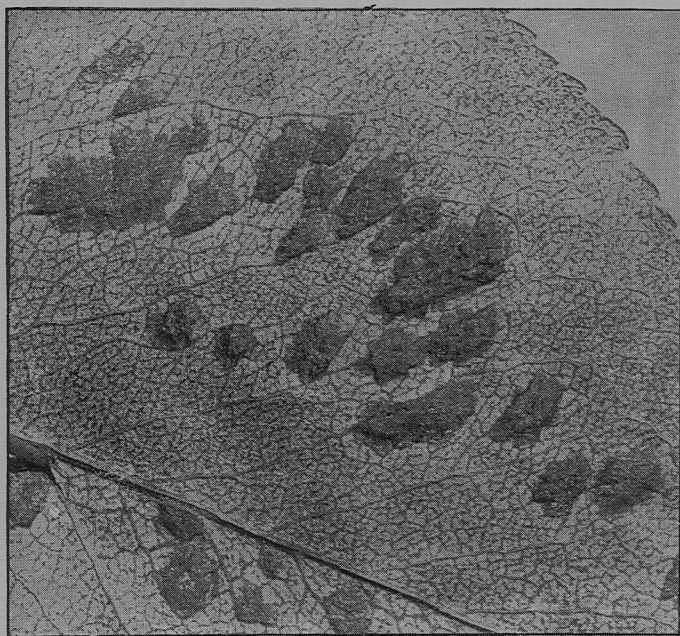
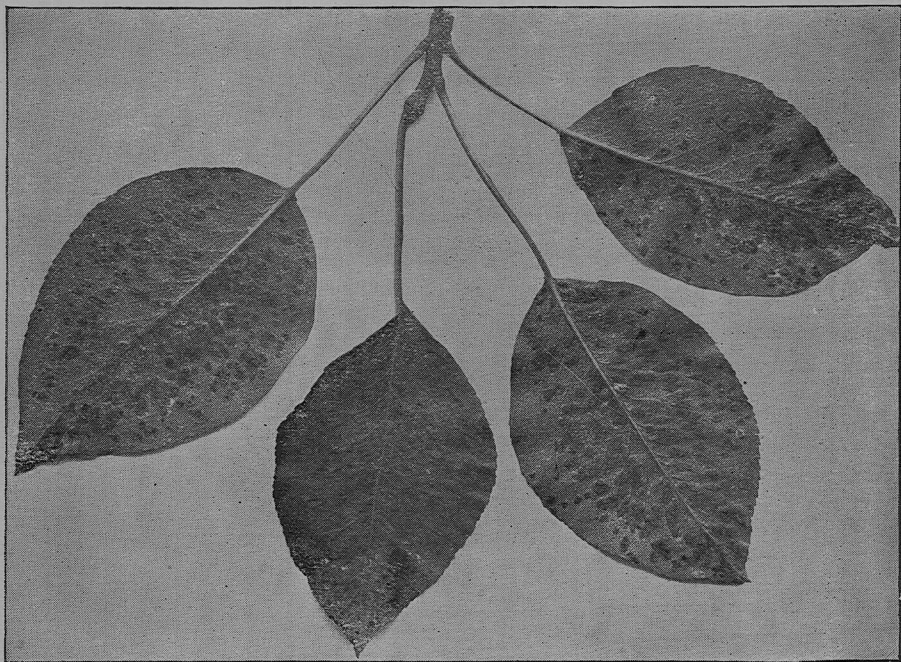
Habits of the Leaping-Ant of Southern Georgia.—In the pine forests upon the sandy loam of Thomas County, near Thomasville, Georgia, I discovered a nest of *Atta brunnea* (*Odontomachus brunneus* Roger.) No hillocks were formed, the openings to the galleries in the earth being at the surface level. The aperture was large enough to have allowed queens as large as those of *Oecodoma* to have passed, the workers (the only sex observed) of *brunnea* being much smaller. The workers jump several inches when disturbed, the leap being backwards and being caused by snapping the mandibles together.

The cocoon contains the pupa of the worker in September.

ATTA BRUNNEA (Roger). Georgia.

A. (*O.*) *hæmatodes* (L.) of the West Indies may prove to be a variety of this.

PLATE XVI.



Work of the Pear Leaf Blister Mite.

♀. Length 9 mm. Of a uniform brown color. Legs and sometimes the tip of the abdomen and the head and thorax, especially beneath, are paler. Mandibles finely serrate within; the tip tridentate, middle tooth smallest. Palpi invisible, obsolete.

Tibæ all one-spurred. Scale of the petiole produced into a spine. The thorax above is densely striate, the head above with finer striations.

ATTA CLARA

Texas.

♀. Uniformly honey-yellow. Scale smaller than in *brunnea*, not forming a spine.

♂. Length. 6 mm. Head ordinary, as wide as long. Eyes oval, slightly sinuate both before and behind, black. Ocelli large, white. Antennæ long as body, not elbowed; brown, except first joint. Mandibles distant, minute, their tips touching. Palpi minute. Wings clear, veins yellow, recurrent vein received in base of second submarginal cell. Entire body and legs yellow. Abdomen hairy, second constriction deep, claspers large, scale rounded.

WM. HAMPTON PATTON, Hartford, Conn.

Note on the Winter-Ant.—Since writing the article upon this ant (AMER. NAT., Oct., '92) I have found the sexes paired in flight, at Hartford, Conn., on the third of August. This indicates the existence of a second or summer brood of the species. The male of *Prenolepis imparis* (Say) Patton, measures only about one-eighth of an inch, the female is twice as long and much more bulky. The sexes also differ in color, the males being black, the workers dark brown, and the females dark honey-yellow.

WM. HAMPTON PATTON.