1908-9.] THE HABITS OF PLETHODON CINEREUS ERVTHRONOTUS.

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Two habits of Plethodon deserve notice as being of rare occurrence among Urodeles. When excited it occasionally aids its progress by leaping. In such cases as have been observed under conditions that admitted measuring the length of the leap it has been found about equal to the length of the animal's body. If the animal is running on a rather even surface it lands on its feet and continues the run having gained by its leap; but it will just as readily leap into difficulties. Held in the open hand it will frequently leap off, no matter what may be the height of the hand above the ground. In jumping the back is slightly arched and the front limbs with most of the trunk are raised in the air to about the height of one centimetre; then with a snap the tail is slapped against the surface over which the animal is moving and the body sharply straightens and shoots forward. The whole movement is so rapid that it cannot be distinguished with certainty whether the limbs aid in the leap. Two things suggest that they do; it is difficult to imagine a force to raise the anterior part of the body to the height it attains if it does not chirdy lie in a spring given by the anterior limbs. The posterior limbs are stouter and are in a good position to aid in the forward propulsion. The young as well as adults possess this power of leaping, indeed the only specimen observed to give a succession of leaps, three in fact, was one of The explanation of the greater development of the posterior 24 mm. limbs in the later larval stages, noted by Montgomery ('o1), may lie in this habit. In this connection Cope ('89), says: "It frequently climbs to the summit of low vegetation, from which it springs by a sudden straightening or curvature of the body, as the case may be, in the manner of a caterpillar." The curvature and straightening in leaping are evident; the climbing of low vegetation to leap from it has not come under observation.

The second noteworthy habit is also connected with escaping enemies. Plethodon will sometimes break off a portion of its tail. Two things suggested the existence of this habit before it was actually observed. In searching for Plethodons in decaying logs not infrequently as the covering is lifted the animal will be found crawling stealthily away from the bit of tail that is making itself very conspicuous by its violent movements. This will occur at times when so little force has been used in picking apart the log that it is difficult to conceive how the piece could have been broken or pinched off. Again about 10% of all specimens found show the end of the tail in the process of regeneration, raising the suspicion that it is a mutilation out of the ordinary. On one occasion when a young Plethodon had been repeatedly touched by a small rod it suddenly gave a jump breaking off at the same time the terminal third of its tail. Two

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