

PLETHODON WELLERI WALKER IN TENNESSEE

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On May 31, 1952, *en route* to Highlands, North Carolina, I stopped along the road south of Mountain City, Tennessee, to reconnoiter the humus fauna in a patch of woodland. The normal measure of search failed to reveal any arthropods of interest, and I had just decided to move along when a small *Plethodon* attracted attention by scrambling away through the leaf mold. Determined that the stop should not be a total loss, I collected the salamander, and to my astonishment found it to be, not *P. cinereus* as I had naively assumed, but the scarce and desiderate *P. welleri*.

Needless to say, this revelation inflamed my lagging will to collect, and a considerable area of forest floor was soon laid bare in an attempt to secure other specimens. In time a second *welleri* was found in the moss-covered ligneous debris at the base of a decayed stump. Shortly afterward a very young specimen was found in the upper horizon of the humus. No additional specimens were seen, although the devastation ran over several hundred square feet of leaf mold, generally right down to the substratum. Investigation was brought to a halt by the onset of twilight and exhaustion.

There can be no doubt of the identification. Both adults in life were marked dorsally with the characteristic bronzy, black-margined lichenose patches. In one, these metallic areas were coalesced into a broad, black-edged median dorsal stripe. In both the ventral surfaces are dark gray, almost black, with small scattered white dots. The young specimen, 34 mm. in total length (19 mm. snout to vent), is of special interest, since the young of this species seem not to have been described. It was, in life, almost uniformly brownish-black dorsally and ventrally, with the faintest suggestion of a narrow, metallic median band. It shows rather well the proportions of the adults, in that the head is not conspicuously enlarged as in the young of members of the *glutinosus* and *jordani* groups.

Dunn and others have advanced the hypothesis that retention of the juvenile color pattern is a primitive condition in salamanders. This circumstance would suggest that *welleri* might be a recent, montane derivative of a widespread *cinereus*-type parent stock which, as presently represented by *cinereus* and related species, shows little or no ontogenetic pattern changes. Unfortunately, despite hardening in 10 percent formalin and transfer to 60 percent alcohol, the dorsal pattern of the adults largely disappeared within a few weeks.

Plethodon welleri has previously been reported from only four localities, namely: (1) Grandfather Mountain, Avery County, North Carolina (Walker, 1931). (2) White Top Mountain, Grayson County, Virginia (Walker, 1934). (3) Flat Top Mountain, Yancey County,

North Carolina (Snyder, 1946). (4) Mount Rogers, Grayson County, Virginia (Hoffman and Kleinpeter, 1948).

The new locality is located on State Highway 67, 5.3 miles north of the intersection at Carderview, Johnson County, Tennessee. It is the fifth station for *welleri*, and the specimens constitute an addition to the known herpesian fauna of Tennessee.

The most remarkable thing about this locality lies in its sheer mediocrity. It does not have high elevation, unusual depth and shade, nor a noteworthy forest cover. State Highway 67 runs down the middle of the Johnson County intermont valley, itself largely deforested. The woodland involved here is chiefly oak-hickory-maple, with some scattered pine, hemlock, and tulip poplar. The understory is exclusively of rhododendron and mountain laurel shrubs. No herbaceous plants were noted, beyond Galax and a few ferns. The forest floor is composed of a layer of dry leaves underlain by moist humus, which runs into a rich black sandy loam. This much varies in depth up to several inches. The substratum is sandstone. The elevation at this locality is about 2500 feet, in striking contrast to the high altitudes of the near-by mountains.

In view of the circumstances discussed above, one is led to suspect that perhaps *welleri* is more extensively distributed than heretofore believed, and may be found (perhaps by experimentation with seasonal collecting) at numerous other localities. It should be recalled that *welleri*, although abundant at several "well-prospected" areas, was not discovered until fairly recently.

LITERATURE CITED

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