CAUDATA

AMBYSTOMA GRACILE GRACILE (Brown Salamander). **WINTER ACTIVITY.** On 5 January 1984, at 2120 hr, an adult male *Ambystoma gracile* was collected as it crossed a road at the Wind River Experimental Forest, 8 km N Carson, Skamania Co., Washington. The air temperature at time of capture was 1° C. Ten measurements of snow depth were taken at 3 m intervals on both the W and E sides of the road. On the W side was a small residential area. A large silviculture field on the E side of the road was completely exposed. The mean snow depth was 35.8 cm. The late fall and early winter months prior to capture were abnormally cold, with temperatures down to -22° C, and maximum December temperatures near freezing. On 3 January, temperatures warmed up, and a small, shallow reservoir of Trout Creek (185 m away) known to harbor *A. gracile* larvae, partially thawed. On 5 January the maximum air temperature was 5° C.

Nussbaum et al. (1983. Amphibians and reptiles of the Pacific Northwest, University Press of Idaho) indicate that terrestrial adults of *A. gracile* tend to be active only during warm spring and fall rains, especially during the spring breeding season. In winter and summer, they reportedly reside in subterranean retreats. The new record indicates that this species may have a longer period of yearly activity and a greater tolerance of cold temperatures than previously thought. This observation is one of a few records for temperate non-plethodontid salamanders found at a temperature near freezing (Feder and Lynch. 1982. Ecology. 63:1657-1664).

I thank J. Buchanan, R. Lundquist and D. Zirjacks for assistance gathering data, and R. B. Bury for commenting on the text. The specimen will be deposited in the National Museum of Natural History (USNM). Contribution number 15 of the Old Growth Wildlife Habitat Program, U.S. Forest Service.

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DICAMPTODON ENSATUS (Pacific Giant Salamander). **COLORATION.** On 4 September 1983, an albino Pacific giant salamander was collected in a tributary of Panther Creek, 12.8 km N Carson, Skamania County, Washington. The larva was found in 3 mm of water under a 50 x 38 mm rock on a small island between two riffles of the creek. The water temperature was 7.5° C at the time of capture (1620 h). The salamander measured 38 mm SVL and 67 mm TL, and weighed 1.7 g.

The specimen is yellowish, with no indication of pigment. The end of the tail, which is black in normally pigmented individuals, appears light grey, but lacks melanin. Other normally pigmented areas of the body also appear light grey, or are colorless. The cornified tips of the toes are black. The gills are light orange. The internal organs are visible through the white venter.

Nussbaum (1976, Misc. Publ. Mus. Zool. Univ. Michigan. 149:1-94) discussed three partial albinos from a single creek in Benton Co., Oregon. These specimens were not considered albinistic because they had dark eyes. Our specimen appears to have dark eyes in normal light, but the eyes appear deep red under bright light. Nussbaum et al. (1983, Amphibians and Reptiles of the Pacific Northwest, University Press of Idaho, 332 pp.) show a photograph of a *D. ensatus* larva also from Benton Co., Oregon. It is called an albino in the caption, but is not described in the text. We are unaware of any other reports of albino *D. ensatus* (Dyrkacz 1981. SSAR Herpetol. Circ. 11:1-32; Hensley 1959. Publ. Mus., Mich. St. Univ. 1:133-159).

The salamander is being raised to a larger size in captivity. (Contribution number 14 of the Old Growth Wildlife Habitat Program, USDA Forest Service.)

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ENSATINA ESCHSCHOLTZII OREGONENSIS (Oregon ensatina). **REPRODUCTION.** Much of what is known about the reproductive biology of western plethodontid salamanders is based on preserved specimens or laboratory observations. Although the ensatina *(Ensatina eschscholtzii)* is the most widespread, and often most abundant, western plethodontid, only a few descriptions of egg masses in nature are available (review by Stebbins. 1954. Univ. Calif. Publ. Zool. 54:47-124; Norman and Norman. 1980. Bull. Chicago Herp. Soc. 15:99-100). Oviposition has only been observed twice, and both were laboratory records (Stebbins, 1954). Stebbins (1954) indicates that female ensatinas are capable of moving the egg mass after it has been deposited, and thus the locations where eggs have been found are not necessarily the sites where egg deposition occurred. Here, we describe the first observation of oviposition by *E. eschscholtzii* under natural conditions.

On 1 May 1984, a large female *E. eschscholtzii oregonensis* (109 mm TL, 63 mm SVL) was found in the central Cascade Mountains of Washington (5.6 km S, 1.5 km W of Packwood, Lewis County, T12N, R9E, Sec. 4, SW 1/4; elev. 700 m) in the act of egg deposition. Ten eggs had been laid in a gelatinous grape-like cluster as described by Stebbins (1954). The last egg protruded from her vent, but was still attached by a strand of jelly. No remaining eggs were visible in her abdomen. The salamander was observed for about 10 min, and remained motionless throughout this period in a twisted, prone position (Fig. 1). Her position was similar to that described and illustrated by Stebbins (1954, p. 93) for *E. e. picta-oregonensis* intergrades under laboratory conditions, but differed in several ways. She was lying on her left side, rather than her right, exposing the lower right portion of her abdomen. Because of this, her right front foot was stretched back, whereas her left front foot rested on the surface of the cavity. Her hind feet were spread widely apart, not pressed against the egg mass, and her tail was outstretched rather than curled. As was noted by Stebbins (1954), the gular region pulsated intermittently.

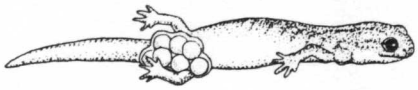

Figure 1. Position of female *Ensatina eschscholtzii oregonensis* during oviposition.

The salamander was found inside a downed red cedar *(Thuja plicata)* log, measuring 36 cm in diameter and 10 m in length. The log still retained its original shape, but the bark was gone and the sapwood had begun to decompose (= decay class 3; Maser et al. 1979. *In* Thomas. Wildlife habitats in managed forests: the Blue Mountains of Oregon and Washington. USDA For. Serv., Agric. Hndbk. No. 553, pp. 78-95). The ensatina was in a small cavity 8 cm beneath the surface of the log. The surrounding vegetation consisted of a dense stand of second growth coniferous forest resulting from a fire about 65 years ago. Dominant species were Douglas-fir *(Pseudotsuga menziesii)*, western hemlock *(Tsuga heterophylla)*, and red cedar, with little understory. It was raining lightly at the time of capture (1527 hr) and the air temperature was 5° C. The log was located on a fairly steep (41%) slope, facing northeast (44°). *E. eschscholtzii* was the only species of salamander found during a four person-hour search of the stand. Ten individuals were collected, including five adult males, four adult females, and one juvenile.

Two eggs measuring 6.2 mm in diameter were collected as vouchers and deposited in the Museum of Vertebrate Zoology at the University of California, Berkeley (MVZ 190828).

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CROCODILIA

CROCODYLUS ACUTUS (American crocodile). **AGGRESSIVE BEHAVIOR.** During a night survey in the dam of Pueblo Viejo, 30 km west of Maracaibo Lake, State of Zulia, Venezuela, on 13 June 1984, we tried to catch by hand a juvenile American crocodile *(Crocodylus acutus)*. The first attempt was unsuccessful, but we observed that this animal was gripping in its jaws a hatchling of *C. acutus*. The disturbance apparently caused the juvenile to release the hatchling, which showed some injuries on the neck and lower jaw and died a few minutes later. After three further attempts we were able to capture the juvenile, which was 628 mm total length (324 mm