

removal of beavers or their dams within the range of *R. draytonii*, although potentially beneficial under certain circumstances, is likely to temporarily or permanently affect habitat suitability for this federally threatened species. Such removals should be avoided to the greatest extent possible.

Considering that beavers are native to the Central Valley of California and some streamcourses in surrounding foothills (Grinnell et al. 1937. *Fur-bearing Mammals of California: Their Natural History, Systematics, and Relations to Man*. Univ. of California Press, Berkeley. 777 pp.), beavers and *R. draytonii* likely co-evolved over much of the range of both species. Careful consideration should be made before controlling beavers within the range of this rare anuran species.

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**RANA LUTEIVENTRIS (Columbia Spotted Frog). MAXIMUM SIZE.** Similar to other species in the *Rana boylei* group (Hillis and Wilcox 2005. *Mol. Phylogenet. Evol.* 34:299–314), *Rana luteiventris* is size-dimorphic in favor of females (Davis and Verrell 2005. *Can. J. Zool.* 83:702–711; Reaser 2000. *Can. J. Zool.* 1158–1167; Turner 1960. *Ecol. Monogr.* 30:251–278), so females reach the body-size maximum. Bull (2005. *Ecology of the Columbia Spotted Frog in Northeastern Oregon*. USDA, Forest Service, PNW-GTR-640. 45 pp.) reported the maximum body size for *R. luteiventris*, a 100 mm SVL female. Here, we augment that maximum.

While examining western North American ranid frogs for misidentifications at the Charles R. Conner Museum (CRCM), Washington State University (WSU), Pullman, Washington, we noted an unusually large female *R. luteiventris* (CRCM 42-34; Fig. 1). Conveniently preserved flat, this female measured 127 mm



FIG. 1. Large female *Rana luteiventris* (CRCM 42-34) collected at Pullman, Washington, USA on 26 March 1942.

SVL. The specimen's tags and the CRCM catalog give the collection locality as simply Pullman, Whitman County, Washington (~46°73'N, 117°17'W, WGS 84; elev. ~750 m). However, the catalog also reveals that Roy D. Shenefelt, curator of the entomology collection at WSU (then Washington State College) around that time, collected this animal on 26 March 1942. No further details are available for this specimen, but the catalog provides locality modifiers for the two other vertebrates collected by Shenefelt, so the Pullman locality likely means Pullman proper rather than somewhere in the vicinity.

Three aspects of this observation merit comment. Recent phylogenetic work on *R. luteiventris* has revealed deep genetic subdivisions that may warrant taxonomic recognition (Funk et al. 2008. *Mol. Phylogenet. Evol.* 49:198–210). Based on locality, our large *R. luteiventris* falls within the area of what Funk et al. (2008, *op. cit.*) label as the Northern clade, which extends from southeastern Oregon to the Yukon Territory, Canada. Maximum sizes reported for *R. luteiventris* attributable to the remaining two clades of Funk et al. (2008, *op. cit.*) differ substantially (79 mm SVL for the Utah clade: Morris and Tanner 1969. *Great Basin Nat.* 29:45–81; and 90 mm SVL for the Great Basin clade: Reaser 2000, *op. cit.*), but whether variation among clades reflects any phylogenetic signal is unclear. Second, among native ranid frogs in western North America, the size of this female is exceeded only by *R. draytonii*, for which the maximum is 138 mm SVL (Hayes and Miyamoto 1984. *Copeia* 1984:1018–1022). Lastly, given that shrinkage is a typical artifact of long-term preservation (Deichmann et al. 2009. *Phyllomedusa* 8:51–58), our measurement of this 70-year-old specimen likely underestimates its size in life.

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**RANA SYLVATICA (Wood Frog). LEUCISM.** On 2 June 2012 a single leucistic *Rana sylvatica* was captured by Campbell Schneider in a pond in Vanderhoof, British Columbia, Canada (54.026022°N, 124.049758°W). Luce and Moriarty (1999. *Herpetol. Rev.* 30:94)



FIG. 1. Leucistic *Rana sylvatica*, British Columbia, Canada.

reported the first record of an albino, however, to the best of our knowledge this is the first record of leucism reported for this species. The leucistic individual was transported to the University of Northern British Columbia for photographs and measurement (2.8 mm SVL, 1.55 g). After analysis, the frog was returned to its pond of origin. The specimen was ivory yellow to orange and pinkish on the limbs, but the eyes retained their color and some dark flecks could be seen on the face (Fig. 1). Pigmentation present in the eyes is a key diagnostic that distinguishes leucism from albinism. However, the frog's viscera were also darkly pigmented and could be seen through the dermis.

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**RHACOPHORUS FEAЕ (Thao Whipping Frog). HABITAT.** *Rhacophorus feae* is a poorly known, large-bodied rhacophorid from Asia. During amphibian and reptile surveys at high-elevations in Pu Hoat Proposed Nature Reserve, Que Phong District, Nghe An Province, Vietnam (19.66°N, 104.79°E, ca. 1300 m elev.), we uncovered an adult female *R. feae* in a terrestrial shelter site. The individual was discovered at 1550 h on 14 April 2011 while surveyors were raking leaf litter 15 m from a pond, and was covered by a 3-cm-thick layer of litter. The temperature and relative humidity at the time were 18.6°C and 100%, respectively. When uncovered, the frog displayed the defense posture previously documented for the species (Le and Rowley 2010. Herpetol. Rev. 41:342). Our discovery of *R. feae* in a terrestrial shelter site was unexpected for a tree frog that was thought to be arboreal. However, terrestrial retreat sites have been recorded previously in *Rhacophorus* (for the more terrestrial species *R. schlegelii*; Ihara 1999. Japan. J. Herpetol. 18:39–44) and in arboreal treefrogs in the family Hyliidae (Rowley and Alford 2007. Dis. Aquat. Org. 77:1–9).



FIG. 1. *Rhacophorus feae* uncovered in diurnal shelter site under leaf litter, Nghe An Province, Vietnam.

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**RHACOPHORUS VIRIDIS VIRIDIS (Okinawa Green Tree Frog).**

**PREDATION.** Anuran amphibians are vulnerable to various predators at all stages of their life history (Wells 2007. The Ecology and Behavior of Amphibians. Univ. Chicago Press, Chicago, Illinois. 1148 pp.). Spiders seem to be the most important invertebrate predators of anurans (Toledo 2005. Herpetol. Rev. 36:395–400), although few reports have been published on Asian species (Hamidy et al. Herpetol. Rev. 41:66–67; Riehl et al. 2008. Herpetol. Rev. 39:77–78).

*Rhacophorus v. viridis* is a common species distributed in the Okinawa Islands, Ryukyu Archipelago, occurring in forests from lowlands to montane regions. On 9 May 2011 at 1955 h, I detected the spider *Heteropoda* cf. *simplex* (Sparassidae) grasping the abdominal region of a recently metamorphosed *R. v. viridis* at a garden pond of Nakagami-gun, Okinawa Prefecture, Japan (Fig. 1). The air temperature was 25.2°C and relative humidity was 88%. The spider with its prey was first found on the underside of an *Asplenium setoi* leaf, located ca. 1.5 m above water surface and 18 cm above the ground. The frog was immobile, probably due to paralysis caused by the spider venom. Unfortunately, the spider was disturbed by photography and escaped into vegetation.

Metamorphosing *R. v. viridis* descend to the terrestrial habitat with an unabsorbed long tail. When darkness approaches, metamorphosing frogs move away from the pond to climb surrounding vegetation. Mean snout–vent length of newly metamorphosed *R. v. viridis* is  $20.6 \pm 0.86$  mm SD (range 18.0–22.5 mm, N = 74). It takes about two days to absorb the tail. As the prey frog in this case had a relatively long tail, it was likely captured by the spider shortly after leaving the water. The spider (cephalothorax + abdomen) was estimated at ca. 2 cm in length.



FIG. 1. The spider *Heteropoda* cf. *simplex* grasping a metamorphosed *Rhacophorus v. viridis*.

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**RHAEBO HAEMATITICUS (Litter Toad) and CRAUGASTOR FITZINGERI (Fitzinger's Rain Frog).**

**REPRODUCTIVE BEHAVIOR.** *Rhaebo haematiticus* and *Craugastor fitzingeri* are common tropical leaf litter frogs that can be found sympatrically from Honduras to Colombia in lowland and premontane wet and moist forests. *Rhaebo haematiticus* is a moderate-sized toad (males 42–62 mm SVL, females 50–80 mm) that reproduces