

silvana9420@gmail.com); **JUANA LUCIA CÁRDENAS-ORTEGA**, Semillero de Investigación en Ornitología de la Universidad de Caldas (SIO-UC), Facultad de Ciencias Exactas y Naturales, Universidad de Caldas, Calle 65 # 26-10, A.A. 275, Manizales, Colombia (e-mail: tastilaju3@gmail.com).

PSEUDACRIS CRUCIFER (Spring Peeper). ENDOPARASITES.

Pseudacris crucifer occurs in eastern North America east of a line from eastern Texas, USA to Winnipeg, Canada, except for the southern half of the Florida Peninsula (Green et al. 2013. North American Amphibians, Distribution and Diversity. University of California Press, Berkeley, California. 340 pp.). We examined the body cavity of one female *P. crucifer* from Oklahoma (29 mm SVL) collected in March 2001 from Cherokee County (35.697°N, 98.871°W; WGS 84) and deposited in the Sam Noble Oklahoma Museum of Natural History, University of Oklahoma (OMNH) as OMNH 38753. The body cavity was opened by a mid-ventral incision and the interior was searched for helminths utilizing a dissecting microscope. Two cysts were found on the body wall. They were removed, cleared in lactophenol, and opened. Their contents were found to contain larval digeneans. They were regressively stained in hematoxylin, mounted in Canada balsam, cover-slipped, studied utilizing a compound microscope and identified as two metacercariae of *Clinostomum* sp. after comparison with Olsen (1974. Animal Parasites: Their Life Cycles and Ecology. Dover Publications, Inc., New York, New York. 562 pp.): "the oral sucker is surrounded by a collar-like fold and the testes are tandem with the ovary." *Clinostomum* sp. has an indirect life cycle, utilizing snails as first intermediate hosts, the cercariae leave the snail and penetrate animals serving as the second intermediate host, where they develop into metacercariae. *Clinostomum* sp. matures in birds that eat infected amphibians harboring mature metacercariae (Muzzall and Kuczynski 2017. Comp. Parasitol. 84:55–59). There are reports of unidentified metacercariae in *P. crucifer* from Michigan (Muzzall and Peebles 1991. J. Helm. Soc. Washington 58:263–265) and from Wisconsin (Yoder and Coggins 2007. J. Parasitol. 93:755–760). Voucher specimens were deposited in the Harold W. Manter Laboratory, University of Nebraska (HWML) as *Clinostomum* sp. (HWML 112238). *Clinostomum* sp. in *P. crucifer* is a new host record.

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STEPHEN R. GOLDBERG, Department of Biology, Whittier College, Whittier, California 90608, USA (e-mail: sgoldberg@whittier.edu);

CHARLES R. BURSEY, Department of Biology, Pennsylvania State University, Shenango Campus, Sharon, Pennsylvania 16146, USA (e-mail: cxb13@psu.edu).

RANA DRAYTONII (California Red-legged Frog). COLORATION.

Rana draytonii has been described as brown, grey, olive, reddish, and/or yellow with dark patches dorsally, and having dark bands on the legs (Storer 1925. Univ. California Publ. Zoo. 27:1–342; Slevin 1928. Occas. Pap. California Acad. Sci. 16:1–152; Stebbins 2003. Western Reptiles and Amphibians, Houghton Mifflin Co., New York, New York. 533 pp.). This accurately describes the variety of the thousands of specimens we have encountered in the field. In October 2004, however, a post-metamorphic individual (45 mm SVL) of a completely atypical coloration was encountered. Herein, we describe an unusual color pattern in a *R. draytonii* that was found at the Lomita Canal in Millbrae, San Mateo County, California, USA.

Rather than the characteristic combination of tan, brown, and tomato red, this individual displayed brilliant orange across



FIG. 1. Atypical coloration in a *Rana draytonii* from San Mateo County, California, USA.

its body (Fig. 1). The specimen was encountered among thick cattails (*Typha* sp.), in a canal paralleling the western shoreline of the San Francisco Bay (37.61116°N, 122.39473°W; WGS 84). *Rana draytonii* typically have a white speckled venter, while this individual had a creamy orange ventral side, free of any dark coloration. The underlying mechanisms that led to the orange coloration of the individual described here are unknown, as it is the first description of such coloration in California. Riemer (1954. Copeia 1954:45–48), in referencing the coloration of *Masticophis lateralis euryxanthus* (Alameda Whipsnake) suggested that "a number" of species of terrestrial vertebrates found in the area of the San Francisco Bay appear to be more richly supplied with yellow, orange, and red pigments. Citing seven different species, six of which are sympatric with *R. draytonii*, Riemer (1954, *op. cit.*) was clearly referencing typical coloration of these species. It is unclear whether the morph seen here suffers from the loss of or under expression of certain pigments (i.e., amelanistic). Amphibians are reported to use carotenoids for skin pigmentation, and because carotenoids are only obtainable through the diet, color degradation could result from limited carotenoid availability (Ogilvy et al. 2012. Anim. Conserv. 15:480–488). It is also possible that this atypical coloration was developed through a genetic mutation. We believe this is the first report of atypical coloration in this threatened species.

DEREK S. JANSEN, 565 Canyonwood Drive, Brentwood, California 94513, USA (e-mail: djansen34@gmail.com); and **JEFF A. ALVAREZ**, The Wildlife Project, P.O. Box 188888 Sacramento, California 95818, USA (e-mail: jeff@thewildlifeproject.com).

RANA ONCA (Relict Leopard Frog). GROWTH, SEXUAL MATURITY, and SIZE.

Although *Rana onca* was once believed extinct, genetic analyses published in 2001 confirmed that the species had persisted (Jaeger et al. 2001. Copeia 2001:339–354). Since then, native populations (Bradford et al. 2004. Southwest. Nat. 49:218–228) have been supplemented by establishing populations at new sites as part of a multi-agency conservation effort (U.S. Fish and Wildlife Service 2016. Fed. Reg. 81:69425–69442). Following the translocation of recently metamorphosed *R. onca* into a pond refugium habitat within the Las Vegas Valley, Nevada (Saumure et al. 2021. In P.S. Soorae [ed.]. Global Conservation Translocation Perspectives: 2021. Case Studies from Around the Globe, pp. 76–81. International Union for the Conservation of Nature, Gland, Switzerland), four individuals grew rapidly,