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Notes

Subcutaneous Neoplasm on the Chin of an Endangered Blunt-nosed Leopard Lizard (*Gambelia sila*)

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Abstract.—The Blunt-nosed Leopard lizard (*Gambelia sila*) is an endangered lizard of the San Joaquin Desert of California. During a radio telemetry study of the effect of oil development on home range parameters of these lizards, we recaptured an adult female because a mass on its chin had increased greatly in size and she appeared significantly thinner than when first captured. The female had lost > 10 g when we recaptured her. In the laboratory, we removed a 0.9 g mass. We closed the skin and sealed it with cyanoacrylic glue. The lizard showed no distress during the operation, ate crickets the day after surgery, but died on the third day. Neoplasms of various kinds are known for many species of lizards, but in our experience, this is the first occurrence of a subcutaneous neoplasm on a Blunt-nosed Leopard Lizard.

Key Words.—California; lizards; neoplasms; San Joaquin Desert

Neoplasms are any new and abnormal growth of tissue in the body (Jacobson 1981). Almost all neoplasms of reptiles are known from zoo animals (Jacobson 1981; Sykes and Trupkiewicz 2006) and, in lizards, have been recorded in various species in nine families (Machotka 1984). Neoplasms can be relatively benign masses or cancerous tumors in any part of the body (Jacobson 1981; Machotka 1984; Barten 2006). A number of benign and cancerous neoplasms occur in the integument of lizards (Jacobson 1981; Machotka 1984; Barten 2006; Sykes and Trupkiewicz 2006). Even if not cancerous, a large mass could interfere with the functioning of an individual, and could lead to its death.

During the course of a radio-telemetry study of the effect of oil field development on Blunt-nosed Leopard Lizards (*Gambelia sila*), a state and federally listed endangered species (Germano and Williams 1992; U.S. Fish and Wildlife Service 1998), we noticed a mass under the chin of an adult female that appeared to be interfering with feeding. The mass under the chin was a small bump when we first collared her 28 April 2015. This female had a snout-vent length of 114 mm and she weighed 39.5 g. During the course of the next month, the subcutaneous mass increased greatly in size (Fig. 1) and the female became noticeably thinner.

By 25 May 2015, we decided that she likely would die if the mass remained under her chin. We captured her and returned her to our laboratory to remove the mass. One of us (DJG) had seen a similar mass under the skin on the right shoulder of a captive Common Chuckwalla (*Sauromalus ater*) in the 1980s. Surgery on this chuckwalla removed a fatty mass and the chuckwalla lived on after the operation. The female leopard lizard had lost 10.2 g of mass when we recaptured her. We carefully sliced open the skin under the chin and removed an intact mass of tissue (Fig. 2). The mass weighed 0.9 g (with slight loss of fluid) and was approximately 10 × 12 mm in size (Fig. 3). We did not conduct a histological examination of the excised tissue.

The female exhibited no signs of stress during the operation. We pressed the skin together after removing the mass and sealed it with cyanoacrylic glue (Fig. 2). We placed the female in a 18.9 L bucket and placed in crickets for her to eat. Although she ate several crickets, we found her dead in the bucket on the third day after surgery. Although the operation was not successful ultimately, we think she did not have long to live in the wild because of her significant weight loss. This is the first recorded instance of a subcutaneous neoplasm in a Blunt-nosed Leopard Lizard, and based on the thousands of leopard lizards we have caught over 26 y, does not seem to be a significant source of mortality for the species.

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Figure 1. Female Blunt-nosed Leopard Lizard (*Gambelia sila*) with a subcutaneous neoplasm. She was being radio-tracked on the Lokern Natural Area in Kern County, California as part of a study of oil-field development effects. (Photographed by David J. Germano).

Figure 2. Female Blunt-nosed Leopard Lizard (*Gambelia sila*) showing incision where the neoplastic mass (lower left) was extracted. (Photographed by David J. Germano).

Figure 3. The subdermal mass that was removed from a female Blunt-nosed Leopard Lizard (*Gambelia sila*) that was being radio-tracked on the Lokern Natural Area in Kern County, California. (Photographed by David J. Germano).