

Wing Wasting

Wing wasting was previously of unknown etiology in *T. brasiliensis*, rendering many bats non-releasable. In 2019, the author received confirmation of *pseudomonas aeruginosa* as the primary cause. This bacterium is found widely in nature and especially in damp, poorly ventilated areas such as attics and crawlspaces where crevice-dwelling bats frequently roost. The condition leaves the bat unable to fly and they are often found grounded with no visible injury. The condition appears to be painful at the onset and may include a slight to moderate swelling of the wrists where fluid is accumulating. An additional early sign may include small areas of irritation (Figure 11-16 A) and a decrease of elasticity of the wing membrane (Figure 11-16 F).

As the condition progresses, small wet areas will be noticed in the folds of the wing membrane and the area may become malodorous. Petechial hemorrhaging may also occur, and the outer edge of the membrane will begin to dry and blacken. Within two or three days of the initial signs, the wing membrane will degrade, weep and slough away and painful blisters may also appear (Figure 11-16 B & C). In the final stage of wing wasting, the membrane will become necrotic and break away. After all necrotic tissue is gone, healing will begin (Figure 11-16 D). The skin of the ears may also be affected by *pseudomonas aeruginosa*.

Early applications of Biogamma cream or Clever Fungus (if available) will cure wing wasting in three to five days (Pers.comm. Marie-Theres Schurrer DVM). These products contain *Pythium oligandrum*, a mycoparasite that feeds on the infectious fungi of the skin/nails, thereby suppressing and killing causative agents. Bats with wing wasting should also receive oral administrations of Veraflox[®] and Metacam, once daily, until the condition has cleared (see Medications). Bats with wing wasting that are treated in the early stages with Biogamma or Clever Fungus are generally releasable. Note: *Pythium oligandrum* may cause a temporary loss of pigmentation during the healing process (Figure 11-16 G).

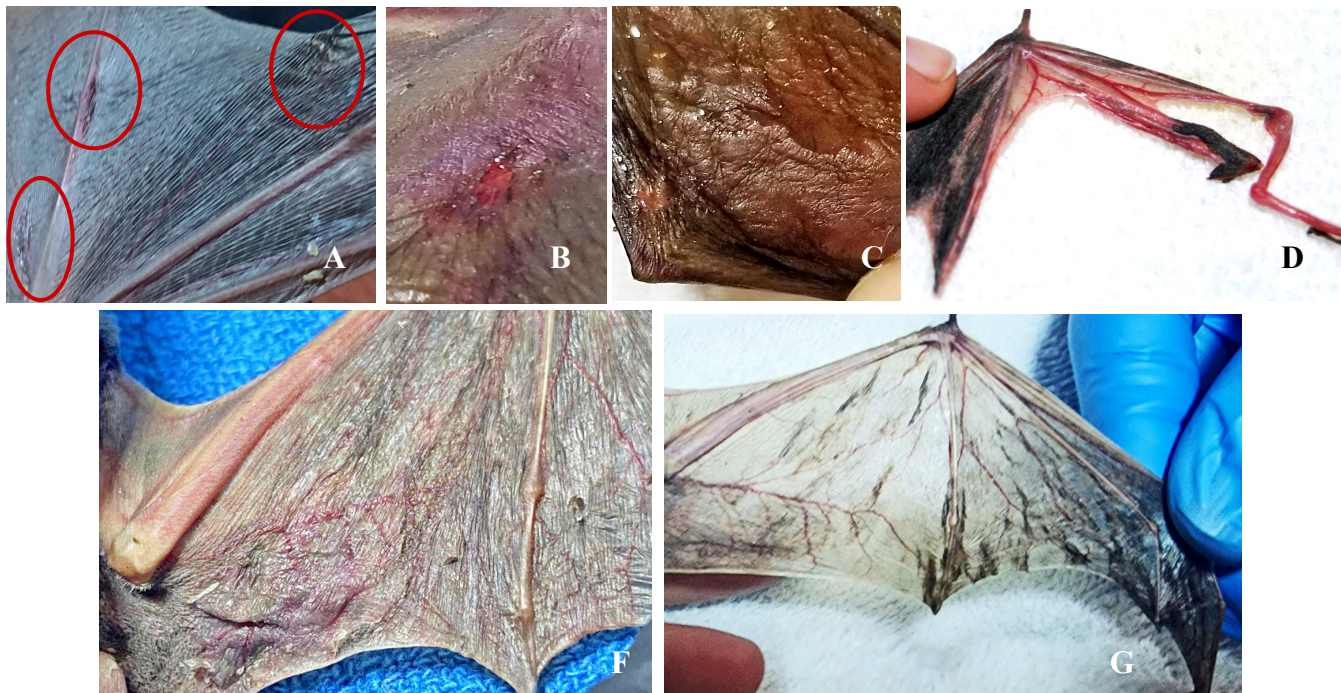


Figure 11-16: **A:** The beginning stages of wing wasting showing small irritated areas on the membrane (circled). **B:** Sloughing caused by wing wasting. **C:** wet areas appear in places inside the folds of the wing membrane. Petechial hemorrhaging may also occur. **D:** The end result of wing wasting on a bat that was not treated Veraflox and Metacam only. **F:** Irritation and loss of elasticity in the wing membrane of a bat newly admitted bat with wing wasting. **G:** Three days post treatment showing temporary depigmentation on the same bat using Veraflox, Metacam and Biogamma cream. *T. brasiliensis*. Bat World Facility. Photo by A. Lollar