

Have you seen a skinny alligator in south Florida?¹

Michiko Squires, Avishka Godahewa, Justin Dalaba, Laura A. Brandt, and Frank J. Mazzotti²

Alligator biologists and natural resource managers need your help! Be a citizen scientist and help track alligator health and body condition throughout the greater Everglades ecosystem.

There has been an increase in reports of very skinny alligators, and help from the public is needed to better understand where and when this problem occurs. When visiting the Everglades, you can be a citizen scientist and help identify and document very skinny alligators. Carefully observe and photograph an alligator from a safe distance, then classify its body condition based on the guidelines below. In addition to the tools you have on hand (smartphone, binoculars, etc.), use this fact sheet as a simple way to classify the body condition of alligators.



Figure 1. American alligator in the Everglades.

Credit: Justin Dalaba, UF/IFAS

Why do we care?

The American alligator (*Alligator mississippiensis*) plays an important role in the Everglades. Alligators affect nearly all aquatic life in an ecosystem as top predators and help provide habitat for other animals as ecosystem "engineers." Without the holes and trails that alligators build, there would be fewer refugia, or hiding places, for fish and wading birds during the dry season, and without their nest mounds, there will be less of the high ground that land animals need during flooding in the Everglades. For more information on the importance of alligators in the Everglades, visit <https://ask.ifas.ufl.edu/publication/UW358>.

In turn, alligators are also affected by their environment. Changes in depth, timing, and flow of freshwater can affect their health (indicated by relative fatness) and their abundance. Alligators' responses to these changes make them an effective indicator species: when their populations decline or when individual alligators look thin, it's a sign that their Everglades ecosystem would benefit from restoration of more natural patterns of water levels and flows.

The natural freshwater flow through the Florida Everglades is highly modified by artificial canals and levees (for more information, visit: <https://ask.ifas.ufl.edu/publication/UW349>). Monitoring ecological indicators like the American alligator tells managers how different areas of this large ecosystem are doing. This fact sheet serves as a guide on scoring alligator body condition and reporting sightings of very skinny alligators to researchers and managers.

Body condition describes an animal's overall physical health and provides insight into how an animal is coping with its environment. For the American alligator in the Everglades, critical environmental factors include water quality, prey availability, and water temperature. The use of a body condition scoring system (BCS) is a simple way to assess an alligator's body condition from a safe distance.

Body Condition Score

To make it easy for citizen scientists to report very skinny alligators in the greater Everglades, biologists have developed a body condition score (BCS) from 1 to 3, where 1 = very skinny (emaciated), 2 = thin or slender (usual for Everglades alligators), and 3 = normal for their entire range.

The following anatomical terms are important to understand when describing the physical body condition of alligators:

- **Limbs**—Four total; two front and two rear legs
- **Jowls**—Lower cheek area between the end of the snout and front limbs
- **Spinal column**—Dorsal area between front and rear limbs
- **Tail girth**—Thickness of tail behind rear limbs

Energy reserves are stored as muscle and fat, especially in the jowls and base of the tail. Healthy alligators have full jowls and plump tails, while unhealthy alligators have shrunken jowls and thin tails.

Use the following body condition scores to classify the health and condition of an alligator based on appearance of their physical anatomy:

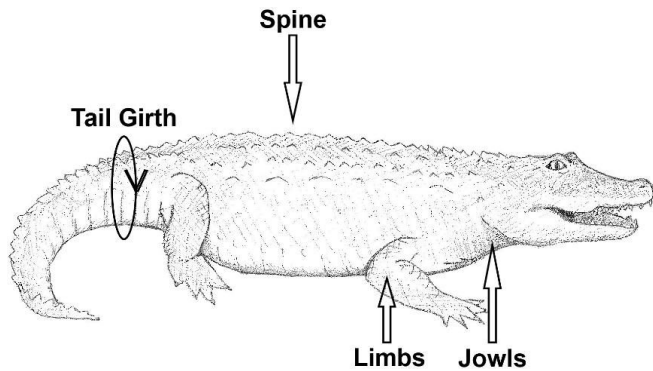


Figure 2. Sketch of an American alligator showing important anatomical features for classifying body condition.

Credit: Jenna Cole, UF/IFAS

BCS 01—Very skinny (emaciated)

- Shrunken jowls and thin neck
- Very bony with thin limbs
- Very visible spinal column
- Wrinkled skin
- Very bony or thin tail



Figure 3. Lateral view of an emaciated alligator, showing shrunken jowls.

Credit: UF/IFAS



Figure 4. Top view of an emaciated alligator showing visible spinal column.

Credit: UF/IFAS



Figure 5. Top view of an emaciated alligator showing thin tail and bony limbs.

Credit: UF/IFAS

BCS 02—Thin or slender

- Lean jowls
- Thin limbs
- Barely visible spinal column
- Lean tail and tail girth



Figure 6. Lateral view of thin alligator, showing lean jowls and thin neck

Credit: UF/IFAS

- Plump tail and larger tail girth



Figure 9. Lateral view of a normal alligator, showing full and fleshy jowls.

Credit: UF/IFAS



Figure 7. Top view of a thin alligator, with the spinal column barely visible.

Credit: UF/IFAS



Figure 10. Top view of a normal alligator, with the spinal column not visible.

Credit: UF/IFAS



Figure 8. Top view of a thin alligator showing lean tail and limbs.

Credit: UF/IFAS

BCS 03—Normal

- Full, fleshy, or bulky jowls
- Muscular, fleshy limbs
- No visible spinal column



Figure 11. Top view of a normal alligator showing plump tail and muscular limbs.

Credit: UF/IFAS

How can you help?

If you see a very skinny alligator:

1. Take a picture from a safe distance (recommended at least 20 feet)
2. Note the exact coordinates at the location (can drop a pin on smartphone map)
3. Add your observation to the Alligator Body Condition project on iNaturalist by visiting:
<https://www.inaturalist.org/projects/alligator-body-condition>

Scan this QR code or visit

<https://www.inaturalist.org/projects/alligator-body-condition> to report sightings of very skinny alligators and help resource managers better understand this problem.



For More Information Contact

Frank J. Mazzotti

UF/IFAS Fort Lauderdale Research & Education Center

3205 College Ave., Davie, FL 33314

Email: fjma@ufl.edu

<https://crocdoc.ifas.ufl.edu/>

¹ This document is WEC415, one of a series of the Department of Wildlife Ecology and Conservation, UF/IFAS Extension. Original publication date December 2019. Visit the Ask IFAS website at <https://ask.ifas.ufl.edu/> for the currently supported version of this publication.

² Justin Dalaba, former science writer and outreach coordinator, UF/IFAS Ft. Lauderdale Research and Education Center, Davie, FL; Michiko Squires, former wildlife biologist, Wildlife Ecology and Conservation Department, UF/IFAS Fort Lauderdale Research and Education Center, Fort Lauderdale FL; Laura A. Brandt, Wildlife biologist, U.S. Fish and Wildlife Service, Davie, FL 33314.; Frank J. Mazzotti, professor, Department of Wildlife Ecology and Conservation, UF/IFAS Fort Lauderdale Research and Education Center; UF/IFAS Extension, Gainesville, FL 32611.

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Opportunity Institution authorized to provide research, educational information and other services only to individuals and institutions that function with non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, marital status, national origin, political opinions or affiliations. For more information on obtaining other UF/IFAS Extension publications, contact your county's UF/IFAS Extension office. U.S. Department of Agriculture, UF/IFAS Extension Service, University of Florida, IFAS, Florida A & M University Cooperative Extension Program, and Boards of County Commissioners Cooperating. Andra Johnson, dean for UF/IFAS Extension.