

DEVELOPMENT OF A STANDARDIZED BODY CONDITION SCORE FOR CHEETAHS (*ACINONYX JUBATUS*)

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Extended Abstract

Standardized body condition indices (BCI) or scores (BCS) provide practical management tools for assessment of diet utilization and general quantification of fat stores that an animal carries. They have been widely developed and applied with livestock,³ domestic cats and dogs,⁸ and more recently, to various wildlife species, primarily hoofstock.^{2,5-7} Comparisons between BCS developed for free-ranging versus captive wildlife species have been informative in optimizing dietary management of some species.^{1,7} Typically, BCS is quantified on a scale of 1 to 5, or 1 to 9, with or without intermediate gradations,^{2,4,8} and accompanying physical descriptors.

We developed a BCS for assessing the cheetah (*Acinonyx jubatus*) in a managed zoological environment, based on objective physical criteria used to categorize domestic cats, on a scale of 1 to 5. Physical features used for evaluation included: overall conformation, neck and shoulders, abdominal tuck, tailhead and pelvis, and ribs. These characteristics were based initially on criteria developed for domestic cats,⁸ but were customized specifically for cheetahs. Descriptors were reviewed, revised, and field-tested by members of the Cheetah SSP management group, and a series of photographs of individual cheetahs were included in the final BCS guideline document. Under this system, BCS 3 is considered Ideal, whereas BCS 2 (Underweight) and BCS 4 (Overweight) represent acceptable body status under various management considerations/individual animal parameters, but warrant closer observation and action. BCS 1 (Very Thin) and BCS 5 (Obese) are not considered acceptable health status for cheetahs. A 6th BCS category descriptor, Pregnancy, was also developed within this system to account for targeted changes in the body conformation of late pregnancy cheetahs, which might otherwise be misclassified.

The overall summary document for a standardized body condition score system for cheetahs is found in Figure 1.

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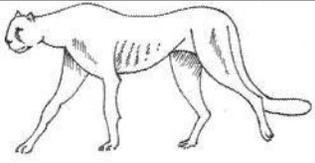
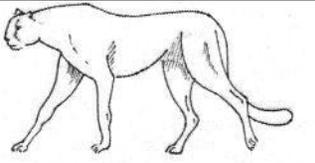
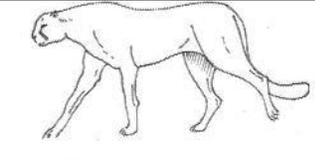
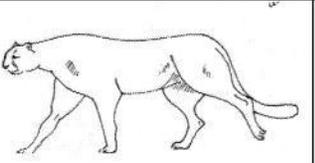
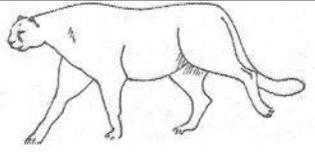
SCORE	1. Very Thin	2. Underweight	3. Ideal	4. Overweight	5. Obese
Outline depictions					
Overall	Loss of muscle mass. Cheek bones prominent; facial features gaunt.	Lean, exaggerated limb delineations, poor muscling. Cheek & face gaunt.	Lean and muscular appearance; obvious delineations between shoulder, stomach and pelvic regions	Stored fat present on inner thigh, pelvic and stomach regions.	Obvious fatty deposits; no definition between shoulder, stomach & pelvic regions
Neck and Shoulders	Bone structure easily visible from a distance	Thin neck	Visible shoulder bones	Shoulders rounded. Neck is thick	Neck is thick and blends into shoulders
Abdominal tuck	Severe	Prominent	Visible without fat pad. Note: pregnant females may have rounded stomach.	None. Note: pregnant females may have rounded stomach.	Large fat pad, no tuck.
Tailhead and pelvis	Very prominent bony structures	Lumbar vertebrae & pelvic bones visible	Bony structure visible but not prominent; thigh muscle obvious while walking. Rear has square appearance.	Fat deposits evident; rear and back have rounded appearance.	Obvious fat deposits over back, pelvis and tail base. Rear & back flat and/or rounded.
Ribs	Obvious	Visible. (Note: Ribs likely not visible if pregnant)	Not visible. (Note: also true if pregnant)	Not visible, fat evident. (Note: also true if pregnant)	Obvious fat deposits

Figure 1. Captive cheetah body condition scores.