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Record 1 of 1**Title:** Food preferences and tooth wear in the sand gazelle (*Gazella marica*)**Author(s):** Schulz, E (Schulz, Ellen); Fraas, S (Fraas, Sven); Kaiser, TM (Kaiser, Thomas M.); Cunningham, PL (Cunningham, Peter L.); Ismail, K (Ismail, Khairi); Wronski, T (Wronski, Torsten)**Source:** MAMMALIAN BIOLOGY **Volume:** 78 **Issue:** 1 **Pages:** 55-62 **DOI:** 10.1016/j.mambio.2012.04.006 **Published:** 2013**Times Cited in Web of Science Core Collection:** 7**Total Times Cited:** 8**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 12**Cited Reference Count:** 85

Abstract: Food preferences of the sand gazelle (*Gazella marica*) from the Mahazat as-Sayd Protected Area in Saudi Arabia were evaluated using focal animal sampling in conjunction with an eco-morphological method examining two parameters of tooth wear, i.e., occlusal relief and cusp shape. Observations of live, free-ranging animals (n = 53) showed that sand gazelles generally consumed more grass (58.4%) than browse (41.6%). However, during the dry season, gazelles spent significantly more time browsing (51.0%) and less time grazing (49.0%) than under wet conditions (browsing: 17.6%; grazing: 82.4%). Thus, consistent with predictions, sand gazelles are intermediate feeders but shift towards browsing when grass is scarce. The mesowear signature of the sand gazelle is consistent with a grazing signal in other ruminants. In other words, the browse component of the diets of live animals was not reflected in the tooth wear. This could have occurred because browse is less abrasive than grass, but more likely because all food types are heavily abrasive in this dusty habitat. We conclude that the sand gazelle population in Mahazat as-Sayd encounters a highly abrasive diet, which has implications for their ability to meet nutritional demands. (C) 2012 Deutsche Gesellschaft für Säugetierkunde. Published by Elsevier GmbH. All rights reserved.

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[Schulz, Ellen; Fraas, Sven; Kaiser, Thomas M.] Univ Hamburg, Zool Museum, Hamburg, Germany.

[Cunningham, Peter L.; Wronski, Torsten] Zool Soc London, Conservat Programs, London, England.

[Cunningham, Peter L.; Wronski, Torsten] Saudi Wildlife Author, King Khalid Wildlife Res Ctr, Riyadh, Saudi Arabia.

[Ismail, Khairi] King Abdulaziz Univ, Dept Biol, Jeddah, Saudi Arabia.

[Ismail, Khairi] Saudi Wildlife Commiss, Natl Wildlife Res Ctr, At Taif, Saudi Arabia.

Reprint Address: Schulz, E (reprint author), Martin Luther King Pl 3, D-20146 Hamburg, Germany.**E-mail Addresses:** ellen.schulz@uni-hamburg.de**Author Identifiers:**

Author	ResearcherID Number	ORCID Number
Schulz-Kornas, Ellen	B-8505-2013	0000-0003-1657-8256
Fac Sci, KAU, Biol Sci Dept	L-4228-2013	
Kaiser, Thomas	G-8883-2015	0000-0002-8154-1751

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