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BULLETIN

**A NEW FOSSIL LAND TORTOISE IN THE
GENUS *CHELONOIDIS* (TESTUDINES: TESTUDINIDAE)
FROM THE NORTHERN BAHAMAS, WITH AN OSTEOLOGICAL
ASSESSMENT OF OTHER NEOTROPICAL TORTOISES**

Richard Franz and Shelley E. Franz

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ABSTRACT

An extinct tortoise, *Chelonoidis alburyorum* n. sp., is described from nearly complete, beautifully preserved fossils from Sawmill Sink, a deep inland blue hole and cave system, on Great Abaco Island, Little Bahama Bank, in the northern Bahamas. This tortoise is part of an extensive fossil fauna in peat deposits associated with an immense debris cone in the entry shaft of this water-filled cave. The peat fauna also includes intact skeletons, skulls, and isolated bones of Cuban crocodiles (*Crocodylus rhombifer*), large birds, native rodents (*Geocapromys ingrahami*), and bats. The turtle remains include the first complete skull, first intact shells, and first associated vertebrae and appendicular skeletons of a tortoise from The Bahamas and/or West Indies. A morphological assessment of this tortoise and other Neotropical tortoises shows greater similarity of this new species with modern *Chelonoidis nigra* from the Galápagos Islands and fossils from the greater Caribbean area, than with the Cuban *Chelonoidis cubensis* or living and fossil continental *Chelonoidis*.

AMS radiocarbon dates obtained from bones from the holotype and female paratype of the new tortoise, and from three Cuban crocodiles from Sawmill Sink, indicate a late Holocene age (2,580-3,820 yrs BP) for the peat deposits that produced the fossils of *Chelonoidis alburyorum*. Two other fossil faunas from this sink are thought to be older, possibly Pleistocene in age. These older fossils lack sufficient carbon to permit reliable radiometric dating. *Chelonoidis alburyorum* is one of a series of tortoise fossils recently found in blue holes, caves, and archaeological sites in the Bahamian archipelago, including the Turks and Caicos Islands, BWI. Two other fossil species from Abaco and the Turks and Caicos Islands, both in the genus *Chelonoidis*, are also new to science and will be described elsewhere. Affinities of the fossils from other Bahamian banks remain unstudied. A morphological assessment of Neotropical tortoises shows greater similarities between the new species, modern *Chelonoidis nigra*, and to a lesser degree fossils from the greater Caribbean than with the Cuban *Chelonoidis cubensis* and continental *Chelonoidis*.

Key Words: new fossil tortoise, Testudinidae, *Chelonoidis*, inland blue holes, Abaco, The Bahamas, late Holocene.

TABLE OF CONTENTS

Introduction.....	2
Bahamian and West Indian Tortoise Fossils.....	3
History of New World Genera.....	4
Methods and Materials.....	4
Systematic Paleontology.....	5
<i>Chelonoidis alburyorum</i> n. sp.....	5
Description.....	11
General Shell Features.....	11
Shell Wounds and Penetrations.....	13
Shell Bones and Scutes.....	13
The Sawmill Sink Skull.....	15
Vertebrae.....	17
Limbs and Girdles.....	18
Preserved Foods.....	19
Descriptions of Other Species of <i>Chelonoidis</i>	19
Fossil Tortoises.....	19
Osteology of Living <i>Chelonoidis</i>	24
Comparisons With <i>Chelonoidis alburyorum</i> n. sp.....	29
Discussion.....	32
Acknowledgements.....	33
Literature Cited.....	33
Appendix I.....	36
Appendix II.....	38
Appendix III.....	40
Appendix IV.....	42

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