

Herpetofauna of White Sands National Monument
Review of Species List

Jerry D. Johnson, Ph.D.
Professor of Biological Sciences
The University of Texas At El Paso

(915) 747-6984
jjohnson@utep.edu

October 18, 2002

The following is a taxonomically arranged list of White Sands National Monument (WSHA) amphibians and reptiles that was supplied to me by the National Park Service (Table 1), plus species added by me with reasons for the additions (indicated by ##). I understand that the original list was primarily developed by Texas Tech University personnel and from observational records from WSHA personnel or visitors. The ** indicate species records that I consider questionable or invalid and reasons why. The species accounts include common names (Collins and Taggart, 2002; subspecies name if applicable), scientific name in parentheses (some revised) and presently recognized subspecies designation in parentheses, general abundance estimates (RA = rare, MO = moderate abundance, CO = common, UN = unknown, OQ = occurrence on WSHA questioned, PD = probable or documented occurrence on WSHA). It should be pointed out that abundance estimates are hard to make without long-term data to support them and that different life history strategies affect estimates for different taxa (e.g., common lizards are more abundant than common snakes). Also presented in the species accounts is evidence for their occurrence on WSHA, and comments on other factors related to resident WSHA species. A literature cited section is also presented, as is a summary statement regarding the overall report. An appendix listing holdings of WSHA herpetofauna deposited in the collection of The Laboratory for Environmental Sciences, Centennial Museum, University of Texas at El Paso (UTEP) is also included.

<u>Common Name</u>	<u>Scientific Name</u>	<u>Subspecies</u>	<u>Abundance Estimate</u>
--------------------	------------------------	-------------------	---------------------------

AMPHIBIA

Caudata/Ambystomatidae

Barred Tiger Salamander	<i>(Ambystoma tigrinum)</i>	<i>(mavortium)</i>	MO
--------------------------------	-----------------------------	--------------------	----

Bill Reid collected a specimen on the road to Garton Lake in September 1976 (UTEP collection) and observed another at Walters Ranch in 1979. It is probably moderately common during breeding season in and near temporary water sources. Its occurrence on WSHA (or close proximity) was mapped by Degenhardt *et al.* (1996), who also commented on problems with subspecies designation within the species. Collins and

Taggart (2002), without substantiating evidence, consider this a full species, *A. mavortium*. It is probably not found on the dunes proper. Its common name is Tiger Salamander in Table 1.

Anura/Bufonidae

Great Plains Toad (*Bufo cognatus*) (none designated) MO

This species is probably restricted to areas close to temporary breeding pools off of main dunes. Occurrence on WHSA was mapped by Degenhardt *et al.* (1996).

Green Toad (*Bufo debilis*) (*insidor*) UN

This species is probably restricted to areas close to temporary breeding pools off of main dunes. Occurrence on WHSA (or close proximity) was mapped by Degenhardt *et al.* (1996).

Red-Spotted Toad (*Bufo punctatus*) (none designated) UN

Degenhardt *et al.*'s (1996) map indicates that this species possibly occurs within WHSA on the west side near the San Andres Mountains. It prefers rocky soil, although it has been found in flat desert areas near temporary breeding ponds in other areas of the Chihuahuan Desert. It is not expected to occur on dunes proper.

Woodhouse's Toad** (*Bufo woodhousii*) (*woodhousii* x *australis*) OQ

The occurrence of this species on WHSA is questioned because it is not recorded from there on the distribution map in Degenhardt *et al.* (1996). This species is normally found near more permanent water sources in desert regions. Intergradation between the two subspecies is discussed and mapped in Conant and Collins (1998).

Anura/Pelobatidae

Couch's Spadefoot (*Scaphiopus couchii*) (none designated) CO

This is the common Chihuahuan Desert Spadefoot that travels relatively long distances to find temporary breeding sites, although I doubt that it occurs very far into the dunes. It occurrence on WHSA is mapped by Degenhardt *et al.* (1996). Stroud (1949) reported on a light colored individual from WHSA that changed to a darker color after removal from the light substrate.

Plains Spadefoot (*Spea bombifrons*) (none designated) UN

This species is usually much less common in desert habitats than Couch's Spadefoot because it seems to prefer less arid habitats. Its occurrence on WHSA is mapped by Degenhardt *et al.* (1996) and probably does not occur in the dunes proper. The old generic name for this species was *Scaphiopus* (see Table 1)

New Mexico Spadefoot** (*Spea multiplicata*) (none designated) OQ

The occurrence of this species on WHSA was not mapped by Degenhardt *et al.* (1996). It is moderately common in other Chihuahuan Desert areas near temporary breeding pools, although much less common than the Couch's Spadefoot. The old generic name for this species was *Scaphiopus* (see Table 1)

REPTILIA (CHELONIA in Collins and Taggart, 2002)

Testudinata/Emydidae

Desert Box Turtle (*Terrepenne ornate*) (*luteola*) RA

Desert Box Turtles were observed on WHSA by D. Vaquez and J. McManness (sec 8, R8E, T17S on 27 July 1985) and 1 mi W of park entrance by John Velion (?) on 28 August 1984. I suspect that box turtles exhibited moderate abundance in the past, but have become less common due to factors associated with humans (e.g., road kills, captured for pets). Degenhardt *et al.* (1996) did not map this species for WHSA. I would not expect this species to be found within the dunes proper. The common name used in Table 1 is Yellow Box Turtle and no species name was listed.

REPTILIA

Squamata/Lacertilia/geckkonidae

Texas Banded Gecko** (*Coleonyx brevis*) (none designated) OQ

This species most likely does not occur on WHSA. Its closest known locality is on the southern desert areas of the Sacramento Mountains. It does not occur in the Organ or San Andres Mountains. It prefers mountain bajada habitats in gravel soils.

Squamata/Lacertilia/Scincidae

Variable Skink** (*Eumeces multivirgatus*) (*gaigeae*) OQ

I would be highly surprised to find this species on WHSA. It is found to the east and north at higher elevations in non-desert habitats. This lizard was referred to as Many-Lined Skink in Table 1.

Great Plains Skink (*Eumeces obsoletus*) (none designated)

UN

I suspect that this species is moderately common on the edges of the dune areas and the surrounding desert and desert grasslands, although Degenhardt *et al.* (1996) did not record this lizard from WHSA.

Squamata/Lacertilia/Crotaphytidae

Eastern Collared Lizard (*Crotaphytus collaris*) (none designated)

MO

This species is moderately common in areas near the edges of the dunes and surrounding desert. Bill Reid and I observed an individual near Walters Ranch in 1978. It probably occasionally wanders into the dune areas in places that have trees and other vegetation. Degenhardt *et al.* 1996 lists its occurrence on WHSA (1996), as does Dixon (1967). The common name for this form is Collard Lizard in Table 1.

Longnose Leopard Lizard (*Gambelia wislizenii*) (none designated)

UN

Degenhardt *et al.* (1996) indicates that this species occurs in the WHSA area, where it occupies desert flats/dunes with shrubby vegetation. I assume that it is rare to moderately abundant in the areas outside the major dunes.

Squamata/Lacertilia/ Phrynosomatidae

Southwestern Earless Lizard## (*Cophosaurus texanus*)(*citulus*)

PD/UK

I would be highly surprised to not find this species at least moderately common in the non-dune desert areas on the western border of WHSA. Degenhardt *et al.* (1996) maps its occurrence in the foothills of the San Andres Mountains.

Bleached Earless Lizard (*Holbrookia maculata*) (*ruthveni*)

CO

This white lizard morphotype is common on the dunes at WHSA. Persons with site records include: Stephen Hagar (between 1993 and 1996), David Smith (between 1993 and 1995), and Kevin de Queiroz (October 1993). Dixon (1967) believed that the population inhabiting the Monument was restricted to the central dunes area, as he found no specimens within 3.2 km of the dune edges. The subspecies designation of this population needs reevaluation. UTEP has a large series of this lizard deposited in the museum collection (see Appendix). The common name for this form in Table 1 is Lesser Earless Lizard.

Texas Horned Lizard (*Phrynosoma cornutum*) (none designated)

MO

Degenhardt *et al.* (1996) mapped this species as occurring in the desert area surrounding WHSA. There is no reason to believe that this species is not moderately common in the

desert areas outside the dunes. However, it is prone to being run over by automobiles because of its habit of sitting on roadways – the effects of this should be examined. The species seems to be doing fine in the western portion of its geographic range, unlike populations in Oklahoma and central and east Texas (no fire ants?).

Mountain Short-Horned Lizard** (*Phrynosoma hernandesi*)(none designated) OQ

Short-horned lizards should not occur on WHSA. They are residents of higher elevations and different vegetation formations. Degenhardt *et al.* (1996) does not map this species in the WHSA area. The common name and scientific name for this species in Table 1 is Short Horned Lizard and *P. douglasi*, respectively.

Roundtail Horned Lizard (*Phrynosoma modestum*) (none designated) MO

Roundtail Horned Lizards are probably more abundant on the western edge of WHSA and in areas with gravel soils. Degenhardt *et al.* (1996) maps this species as occurring on WHSA.

Desert Spiny Lizard (*Sceloporus magister*) (none designated) RA

Degenhardt *et al.* (1967) maps localities for this species near WHSA. Dixon (1967) indicated that the species preferred desert areas off the dunes. This species is probably more abundant than indicated because it is a species that is difficult to observe due to its habit of hiding inside shrubby vegetation.

Crevice Spiny Lizard** (*Sceloporus poinsettii*) (*poinsettii*) OQ

Crevice Spiny Lizards do not occur on WHSA. Degenhardt *et al.* (1996) maps the closest localities as being in the desert foothills of the Sacramento Mountains to the east. They do not occur in the Organ or San Andres Mountains. They are restricted to areas with large rocks and outcroppings. In Table 1, the species was incorrectly referred to as *S. undulatus*.

Southern Plateau Lizard (*Sceloporus cowlesi*) (none designated) CO

This light colored morphotype from WHSA dune areas was considered a subspecies of *Sceloporus undulatus* by Lowe and Norris (1956). However, Leache and Reeder (2002) split most all previously recognized subspecies of *S. undulatus* into full species and designated all populations from southern New Mexico, southeastern Arizona, extreme west Texas, and northern Mexico as belonging to this species. Dixon (1967) examined specimens from both dune and non-dune areas and decided that all individuals differ only in color pattern. UTEP has a sizable series of this species deposited in the museum collection (see Appendix). Table 1 lists this species as *S. undulatus* and common names of Fence/Prairie/Plateau Lizard.

Tree Lizard** (*Urosaurus ornatus*) (none designated)

OQ

I follow Wiens (1993) in not recognizing subspecies within this taxon, although Degenhardt *et al.* (1996) suggested the need for reevaluation. Degenhardt *et al.* (1996) does not map any localities for this species from WHSA. The species is normally found in rocky desert mountain regions. It is known from the San Andres and Sacramento Mountains. UTEP has a voucher specimen recorded from WHSA, but it was questioned as possibly being from White Sands Missile Range near the Organ Mountains. Until a viable population on WHSA is found, I prefer not to recognize that this species occurs there.

Desert Side-Blotched Lizard (*Uta stansburiana*) (*stejnegeri*)

CO

According to Dixon (1967), this species is common in the area surrounding the white sands, but doesn't travel more than 30 m into the dunes - it prefers shrubby areas where it can hide. Smith (1943) however reported this species as commonly occurring on the dunes. The common name for this form in Table 1 is Side-Blotched Lizard and no species name was given.

Squamata/Lacertilia/Teiidae

Note: The genus name for whiptail lizards, *Cnemidophorus*, in North America was recently changed to *Aspidozelis* by Reeder *et al.* (2002). Oddly, no species of whiptail lizards were reported for WHSA on the list supplied to me by the National Park Service.

Chihuahuan Spotted Whiptail## (*Aspidozelis exanguis*) (none designated) PD/UK

Degenhardt *et al.* (1996) depicts this species as occurring near WHSA and I have no reason to believe that it doesn't, at least in some areas of the Monument. It would be expected to occur off the dunes in the desert areas of shrubby vegetation. It is a parthenogenetic all female species (triploid karyotype). This species was not listed on the species list supplied me by the National Park Service (Table 1).

Little White Whiptail## (<i>Aspidoscelis inornatus</i>) (<i>gypsi</i>)	PD/CO
Plains Striped Whiptail## (<i>Aspidoscelis inornatus</i>) (<i>llanuras</i>)	PD/UK

Degenhardt *et al.* (1996) depicted this species as occurring on WHSA. Dixon (1967) identified individuals from the central dunes as usually being colored differently (lighter) than those off the dunes, although some living on the dunes were reported to be darker. Wright and Lowe (1993) relegated the WHSA light morphed population to the subspecies *A. i. gypsi* and lizards from outside the dunes to *A. i. llanuras*. It is unclear whether the individuals living off the dunes on WHSA are *A. i. llanuras* or *A. i. gypsi*. Collins and Taggart (2002), without substantiated evidence, recognize this form as a full species (*A. gypsi*), but did not list *A. i. llanuras*. I personally have a problem recognizing sympatric or parapatric geographic variant populations that were produced by natural selection within different local environments as subspecies of each other. So, as far as I'm concerned, the subspecific status of all the *A. inornatus* on WHSA is unresolved. If the White Sands dune population is taxonomically different and does not intergrade with surrounding desert populations, then why not consider them as separate species (they would be separate evolutionary lineages)? This would be a good problem for a graduate student to undertake. UTEP has a large series of this species deposited in the museum collection. The species is biparental. It is not listed in Table 1.

New Mexico Whiptail## (<i>Aspidoscelis neomexicanus</i>) (none designated)	CO
---	----

Degenhardt *et al.* (1996) depicts this species as occurring on WHSA. Dixon (1967) indicates that it does not occur on the dunes, rather in the desert flats surrounding them. It is a parthenogenic all female species (diploid karyotype). It is not listed in Table 1.

Western Marbled Whiptail## (<i>Aspidoscelis tigris</i>) (<i>marmoratus</i>)	PD/UK
--	-------

Degenhardt *et al.* (1996) depicts this species as occurring in surrounding areas to WHSA, although its presence was not mentioned by Dixon (1967). These wary lizards are hard to capture unless large pit-fall traps are used. I expect that the species will be found in the desert flats surrounding the dunes. The species is biparental. It was not listed in Table 1.

Squamata/Serpentes/Colubridae

Painted Desert Glossy Snake (*Arizona elegans*) (*philipi*) MO

The presence of this species on WHSA was indicted by Degenhardt *et al.* (1996) and observed 24 April 1972 by McKeever within the dune field in the NE corner of the Monument. It prefers sandy soil habitats.

Regal Ringneck Snake** (*Diadophis punctatus*) (*regalis*) OQ

The occurrence of this species on WHSA is highly suspect. Within the range of this species in the southwestern U.S., it is usually associated with mountainous habitats. Degenhardt *et al.* (1996) depicts a locality for this species to the west (probably in the San Andres Mountains). If the Regal Ring-Neck Snake occurs on WHSA, it will be probably be found to west of the main dunes.

Western Hooknose Snake** (*Gyalopion canum*) (none designated) OQ

This species was not reported close to WHSA (Degenhardt *et al.*, 1996), so its occurrence there is highly questionable. However, it is not abundant in other areas of the Chihuahuan Desert, so the possibility of it being overlooked at WHSA is plausible.

Plains Hognose Snake (*Heterodon nasicus*) (*nasicus*) MO

This species as been documented on WHSA by Degenhardt *et al.* (1996) and observed by Greg Honachefsky in the residential area on 18 June 1983. The species prefers sandy areas with grasses, so I would expect to find them in more grassy areas of the Monument. UTEP has one specimen from WHSA deposited in the museum collection (see Appendix). Table 1 lists the common name as Western Hognose Snake.

Desert Kingsnake** (*Lampropeltis getula*) (*splendida*) OQ

The occurrence of this species on WHSA is highly suspect because Degenhardt *et al.* (1996) does not depict the range to be anywhere near the Monument. This snake is usually associated with major river systems in central and southern New Mexico. Table 1 lists the common name as Common Kingsnake.

Western Coachwhip (*Masticophis flagellum*) (*testaceus*) CO

Degenhardt *et al.* (1996) depicts this species as occurring on WHSA. Vasquez observed a specimen near the residential area on 27 July 1984. I suspect that this species is common, especially in the desert areas outside the dunes, but could also be expected in the dunes proper where lizards abound (their primary food source). Table 1 lists the common name as Coachwhip.

Desert Striped Whipsnake## (*Masticophis taeniatus*) (*taeniatus*) PD/UK

Degenhardt *et al.* (1996) depicts localities for this species to the west of WHSA in the San Andres Mountains. I suspect, from experience with this species elsewhere in the Chihuahuan Desert, that it will be found on WHSA in the desert areas, at least west of the major dunes.

Sonoran Gopher Snake (*Pituophis catenifer*) (*affinis*) MO

This species is probably moderately common in the WHSA area, especially on the western edge of the Monument closer to the San Andres Mountains. It is probably not common on the dunes. Degenhardt *et al.* (1996) depicts its occurrence in the WHSA area. Bill Reid observed several during his ecological studies on WHSA from 1976 through 1980. The species name for this snake was recently changed from *P. melanoleucus* to *P. catenifer*. Table 1 list the common name as Pine or Gopher Snake.

Texas Longnose Snake (*Rhinocheilus lecontei*) (*tesselatus*) MO

Degenhardt *et al.* (1996) maps this species directly east of WHSA. McKeever observed two specimens in 1973 on WHSA, one from 1.5 mi. from station entrance on Dune Drive (22 July), the other was on US Hwy 70, 2/10 mi. W of Headquarters (23 July). Dennis J. observed another individual in the maintenance yard 7 July 1975. The occurrence of this species throughout WHSA is expected, although less likely on main dunes. It primarily feeds of lizards.

Big Bend Patchnose Snake** (*Salvadora deserticola*) OQ

This species was not depicted by Degenhardt *et al.* (1996) as occurring on WHSA and its occurrence there is highly suspect, except for the possibility that it is found near the far western border of the Monument. The species prefers gravel soils on Mountain Bajadas.

Mountain Patchnose Snake** (*Salvadora grahamiae*) (*grahamiae*) OQ

This species, in all likelihood, does not occur on WHSA. It was not depicted as occurring there by Degenhardt *et al.* (1996). Its usual range is at higher elevations in mountain habitats.

Ground Snake (*Sonora semiannulata*) (none designated) UK

This secretive snake was not depicted as occurring on WHSA by Degenhardt *et al.* (1996), although it surely occurs there based on its distributional patterns elsewhere in the Chihuahuan Desert. I suspect that pit-fall trapping would find this snake in all parts of the Monument, with the probably exception of the main dune field.

Southwestern Blackhead Snake** (*Tantilla hobartsmithi*) (none designated) OQ

Degenhardt et al. (1996) does not show a record for this species from WHSA. The closest locality is from near Alamogordo in the lower Sacramento Mountains. Its occurrence on the Monument is suspect because the site would be at the far northern edge of the range of the species and the WHSA habitat is not the type normally inhabited. If found on WHSA, it probably occurs in the desert area surrounding the dunes.

Plains Blackhead Snake** (*Tantilla nigriceps*) (none designated) OQ

This species most likely does not occur on WHSA. Its occurrence there was not depicted by Degenhardt *et al.* (1996). It is usually found in a desert grassland or mountain environments.

Yaqui Blackhead Snake** (*Tantilla yaquia*) (none designated) OQ

This species does not occur on WHSA and it's puzzling how it got on the National Park Service list to begin with. The closest locality to WHSA for this species is in extreme southwestern New Mexico (Hidalgo County). It is primarily a Mexican species.

Western Blackneck Garter Snake (*Thamnophis cyrtopsis*) (*cyrtopsis*) UK

Degenhardt *et al.* (1996) shows a record for this species directly west of WHSA in the foothills of the San Andres Mountains and directly east near the Sacramento Mountains. My experience with this species in the Chihuahuan Desert indicates a wide-range of habitats used from aquatic systems to desert arroyos to mountain canyons. Suitable habitat is found on WHSA and I have no reason to believe that it doesn't occur there.

Squamata/Serpentes/Viperidae

Western Diamondback Rattlesnake (*Crotalus atrox*) (none designated) CO

This species is probably the most common snake found on WHSA. Its occurrence there is depicted by Degenhardt et al. (1996). Sight records include: McKeever, on 12 August 1973, reported a Diamondback from 1.3 mi. from the station entrance on Dune Drive; Vasquez reported an observation from Sec. 8, R5E, T19S on 28 October 1985; and Marv McConnell observed an individual across from Big Dune Trail parking lot on 30 April 1979. Bill Reid observed the species at WHSA during 1978 and 1979. I suspect that this species will be found in all habitats on the Monument, with the possible exception of the major dunes that lack vegetation.

Prairie Rattlesnake (*Crotalus viridis*) (*viridis*) MO

Degenhardt et al. (1996) does not depict this species as occurring on WHSA, but shows localities close to the Monument. McKeever observed an individuals on 9 November 1973 ½ mi. from station entrance on Dune Drive; Vasquez observed one at men's

restroom on 8 August 1984; David B? observed one on Big Dune Trail near marker #8 on 25 June 1983; and Fred Baker saw one next to the men's restroom on walkway 10 September 1980. The species is probably moderately common in most areas of the Monument. It is a wide-ranging species and tolerates a variety of habitat types.

Desert Massasauga (*Sistrurus catenatus*) (*edwardsi*)

UK

Degenhardt *et al.* (1996) does not depict records for this species from WHSA. However, McKeever observed an individual from 1.1 mi. from station entrance on Dune Drive on 18 August 1973. The closest known locality from WHSA is on the other side of the San Andres Mountains near Las Cruces. I have heard rumors that this species occurs around WHSA, but have never seen a specimen from there. I do not doubt the McKeever record, but an effort should be expended to find out if this species is a resident of WHSA. Small *Crotalus viridis* look somewhat similar to this species. The common name listed in Table 1 is Massasauga.

Literature Cited

- Collins, J. T. and T. W. Taggart. 2002. Standard common and current scientific names for North American Amphibians, Turtles, Reptiles, and Crocodilians. Center for North American Herpetology, Lawrence. 44 pp.
- Conant, R. and J. T. Collins. 1998. Peterson Field Guides: Reptiles and Amphibians of Eastern/Central North America. Houghton Mifflin Co., New York. 616 pp.
- Degenhardt, W. G., C. W. Painter, and A. H. Price. 1996. Amphibians and Reptiles of New Mexico. Univ. New Mexico Press, Albuquerque. 431 pp.
- Dixon, J. R. 1967. Aspects of the biology of the lizards of the white sands, New Mexico. Cont. Sci. Los Angeles County Museum 129:1-22.
- Leache, A. D. and T. W. Reeder. 2002. Molecular systematics of the eastern fence lizard (*Sceloporus undulatus*): a comparison of parsimony, likelihood, and Bayesian approaches. Syst. Biol. 51:44-68.
- Lowe, Jr., and K. S. Norris. 1956. A subspecies of the lizard *Sceloporus undulatus* from The white sands of New Mexico. Herpetologica 12:125-127.
- Reeder, T. W., C. J. Cole, and H. C. Dessaur. 2002. Phylogenetic relationships of whiptail lizards of the genus *Cnemidophorus* (Squamata: Teiidae): A test of monophyly, reevaluation of karyotypic evolution, and review of hybrid origins. American Mus. Nov. 3365:1-61.

Smith, H.M. 1943. The white sands earless lizard. Field Mus. Nat. Hist. Zool. Ser., 24:339-344.

Stroud, C.P. 1949. A white spade-foot toad from the New Mexico white sands. Copeia 1949:232.

Weins, J. J. 1993. Phylogenetic systematics of the tree lizards (Genus *Urosaurus*). Hereptologica 49:399-420.

Wright, J. W. and C. H. Lowe. 1993. Synopsis of the subspecies of the little striped Whiptail lizard, *Cnemidophorus inornatus* Baird. J. Arizona-Nevada Acad. Sci. 27:129-157.

SUMMARY STATEMENT

My review of the list of amphibians and reptiles supplied by the National Park Service for WHSA reports that several listed species probably do not occur on Monument property. Those species are: *Coleonyx brevis*, *Eumeces multivirgatus*, *Phrynosoma hernandesi*, *Sceloporus poinsettii*, *Salvadora grahamiae*, and *Tantilla yaquia*. Other species may occur there but are highly suspect in that regard. Those species include: *Spea multiplicata*, *Urosaurus ornatus*, *Diadophis punctatus*, *Lampropeltis getula*, *Salvadora deserticola*, *Tantilla hobartsmithi*, and *Tantilla nigriceps*. I have added to the supplied list several species that are known to occur, or most likely occur on WHSA, but not previously reported. Those forms are: *Cophosaurus texanus*, *Aspidoscelis exanguis*, *Aspidoscelis inornatus llanuras*, *Aspidoscelis tigris*, and *Masticophis taeniatus*. However, it should be pointed out that new locality records for amphibians and reptiles consistently show up in the literature, even in well-collected areas, so no list should be considered absolute. I do recommend that an intensive field survey be undertaken over a period of several years to better understand the species richness of the herpetofauna of WHSA. Relying on distributional lists generated using criteria other than actual long-term field studies are unreliable at best.

Table 1. Taxonomized list of the herpetofaunal species purported to occur on White Sands National Monument that was provided to me by the National Park Service. I was told that Texas Tech University personnel compiled this list. The common and scientific names do not always reflect the correct nomenclature followed today (see species account in the review).

AMPHIBIA

Tiger Salamander	<i>Ambystoma tigrinum</i>
Great Plains Toad	<i>Bufo cognatus</i>
Green Toad	<i>Bufo debilis</i>
Red-Spotted Toad	<i>Bufo punctatus</i>
Woodhouse's Toad	<i>Bufo woodhousii</i>
Plains Spadefoot	<i>Scaphiopus bombifrons</i>
Couch's Spadefoot	<i>Scaphiopus couchii</i>
New Mexico Spadefoot	<i>Scaphiopus multiplicatus</i>

REPTILIA

Yellow Box Turtle	no species name
Texas Banded Gecko	<i>Coleonyx brevis</i>
Great Plains Skink	<i>Eumeces obsoletus</i>
Many-Lined Skink	<i>Eumeces multivirgatus</i>
Collard Lizard	<i>Crotaphytus collaris</i>
Longnose Leopard Lizard	<i>Gambelia wislizenii</i>
Lesser Earless Lizard	<i>Holbrookia maculata</i>
Texas Horned Lizard	<i>Phrynosoma cornutum</i>
Short-Horned Lizard	<i>Phrynosoma douglasi</i>
Roundtail Horned Lizard	<i>Phrynosoma modestum</i>
Desert Spiny Lizard	<i>Sceloporus magister</i>
Crevice Spiny Lizard	<i>Sceloporus undulatus</i> (This species is <i>S. poinsettii</i>)
Fence/Prairie/Plateau Lizard	<i>Sceloporus undulatus</i>
Tree Lizard	<i>Urosaurus ornatus</i>
Side-Blotched Lizard	no species name
Glossy Snake	<i>Arizona elegans</i>
Ringneck Snake	<i>Diadophis punctatus</i>
Western Hooknose Snake	<i>Gyalopion canum</i>
Western Hognose Snake	<i>Heterodon nasicus</i>
Common Kingsnake	<i>Lampropeltis getula</i>
Coachwhip	<i>Masticophis flagellum</i>
Pine or Gopher Snake	<i>Pituophis melanoleucus</i>
Longnose Snake	<i>Rhinocheilus lecontei</i>
Big Bend Patchnose Snake	<i>Salvadora deserticola</i>
Mountain Patchnose Snake	<i>Salvadora grahamiae</i>
Ground Snake	<i>Sonora semiannulata</i>
S.W. Blackhead Snake	<i>Tantilla hobartsmithi</i>
Plains Blackhead Snake	<i>Tantilla nigriceps</i>

Reptilia (cont.)

Yaqui Blackhead Snake
Blackneck Garter Snake
W. Diamondback Rattlesnake
Prairie Rattlesnake
Massasauga

Tantilla yaquia
Thamnophis cyrtopsis
Crotalus atrox
Crotalus viridis viridis
Sistrurus catenatus

Appendix – Herpetofaunal species From White Sands National Monument, Otero County, New Mexico, Deposited in the Collection of Laboratory for Environmental Biology, Centennial Museum, The University of Texas at El Paso (UTEP). The Accounts Include UTEP Number, Locality on WHSA, Collector, and Collection Date.

AMPHIBIA/CAUDATA

Tiger Salamander (Ambystoma tigrinum)

UTEP

2988: ½ mi. SE Headquarters on road to Garton Lake – Bill Reid – 9/76

REPTILIA/SQUAMATA/LACERTILIA

Little Striped Whiptail (Cnemidophorus inornatus)

UTEP#

3061-3065: ca. 6 mi. NW headquarters on Loop Road – S.C. Helfert – 5/1/77

3066-3072: “ “ “ “ “ “ - 5/7/77

3073-3074: “ “ “ “ “ “ - 5/12/77

3075-3076: “ “ “ “ “ “ - 5/17/77

3077-3079: ca. 8 mi. NW headquarters on loop road - S. C. Helfert - 5/17/77

3080-3091: ca. 9 mi. NW headquarters, 1 mi. SW Loop Drive – S.C. Helfert – 6/1/77

3092-3100: ca. 10 mi. NW headquarters, 1 mi. SW Loop Drive – S.C. Helfert – 6/18/77

3101-3111: ca. 11 mi. NW headquarters, 1 mi. SW Loop Drive – S.C. Helfert – 7/1/77

3112-3120: “ “ “ “ “ “ - 7/16/77

3121- 3130: ca. 8 mi. NW headquarters, 1 mi. SW Loop Drive – S.C. Helfert – 8/1/77

3131-3138: ca. 9 mi. NW headquarters, 1-2 mi., SW Loop Drive – S.C. Helfert – 8/10/77

3139: ca. 10 mi. NW headquarters, 1-2 mi., W Loop Drive – S.C. Helfert – 9/1/77

3140-3144: “ “ “ “ “ “ - 9/5/77

3342 – 3342: ca. 11 mi. NW headquarters – S.C. Helfert – 7/16/77

3454-3455: 6-7 mi. W headquarters – R. G. Webb – 6/12/65

4090: Picnic area – Alex Wright – 8/29/68

Lesser Earless Lizard (*Holbrookia maculata*)

UTEP

- 3456-3457: 6-7 mi. W headquarters – R. G. Webb – 6/12/65
- 3241-3453: ca. 12 mi. NW headquarters, ½ mi. NE end of Loop Drive – S.C. Helfert – 5/1/77
- 3266-3267: ca. 9 mi. NW headquarters, 1 mi. SW Loop Drive – S.C. Helfert – 5/1/77
- 3254-3255: ca. 6 mi. NW headquarters, 1 mi. SW Loop Drive – S.C. Helfert – 5/7/77
- 3256-3265: ca. 8 mi. NW headquarters, 1 mi. SW Loop Drive – S.C. Helfert – 5/12/77
- 3268-3276: ca. 9 mi. NW headquarters, 1 mi. SW Loop Drive – S.C. Helfert – 5/16/77
- 3277-3287: ca. 10 mi. NW headquarters, 1 mi. SW Loop Drive – S.C. Helfert – 6/18/77
- 3288-3297: ca. 11 mi. NW headquarters, 1 mi. SW Loop Drive – S.C. Helfert – 7/1/77
- 3298-3302: ca. 6 mi. NW 30 station, 3 mi. W end Loop Drive (alkali flat) – S.C. Helfert – 7/12/77
- 3303- 3307: ca. 11 mi. NW headquarters, 1-2 mi. SW Loop Drive in Gypsum dunes – S.C. Helfert – 7/16/77
- 3308-3318: ca. 8 mi. NW headquarters, 1-2 mi. SW Loop Drive – S.C. Helfert – 8/1/77
- 3319-3328: ca. 9 mi NW headquarters, 1-2 mi. SW Loop Drive – S.C. Helfert – 8/10/77
- 3329-3332: ca. 8 mi NW headquarters, 1-2 mi. SW Loop Drive – S.C. Helfert – 9/1/77
- 3333-3341: “ “ “ “ “ “ - 9/5/77

Southern Plateau Lizard (*Sceloporus cowlesi*) (formerly *S. undulatus*)

UTEP

- 802: Ranger building – R. Kinniburgh – 9/61
- 3458-3459: 6-7 mi. W headquarters – R. G. Webb – 6/12/65
- 3145-3153: ca. 6 mi. NW headquarters, 1 mi. SW Loop Drive on gypsum dunes – S.C. Helfert – 5/1/77
- 3154: “ “ “ “ “ “ “ “

Sceloporus cowlesi (cont.)

UTEP

- 3155-3167: ca. 8 mi. NW headquarters, 1 mi. SW Loop Drive – S.C. Helfert – 5/12/77
- 3168-3169: “ “ “ “ “ - 5/17/77
- 3170-3171: “ “ “ “ “ - 6/1/77
- 3172-3180: ca. 9 mi. NW headquarters, 1 mi. SW Loop Drive – S.C. Helfert – 6/1/77
- 3181-3191: ca. 10 mi. NW headquarters, 1 mi. SW Loop Drive – S.C. Helfert – 6/18/77
- 3192-3201: ca. 11 mi. NW headquarters, 1 mi. SW Loop Drive – S.C. Helfert – 7/1/77
- 3202-3211: “ “ “ “ “ - 7/16/77
- 3212-3221: ca. 8 mi. NW headquarters, 1 mi. SW Loop Drive – S.C. Helfert – 8/1/77
- 3222-3231: ca. 9 mi. NW headquarters, 1-2 mi. SW Loop Drive – S.C. Helfert – 8/10/77
- 3232-3239: ca. 8 mi. NW headquarters, 1-2 mi. SW Loop Drive – S.C. Helfert – 9/1/77
- 3240: “ “ “ “ “ - 9/5/77

Tree Lizard (*Urosaurus ornatus*)

UTEP

- 2655: White Sands National Monument – Susan Bennett – 8/10/74*

* Notes in the catalog indicate that this specimen may be from the White Sands Missile Range near Organ Mountains.

REPTILIA/SQUAMATA/SERPENTES

Western Hognose Snake (*Heterodon nasicus*)

UTEP

- 2865 (Osteo. Collection 857): .6 mi. W headquarters – R. E. Worthington – 5/28/76