

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



Nineteenth meeting of the Conference of the Parties
Panama City (Panama), 14 – 25 November 2022

CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

A. Proposal

Inclusion of the desert horned lizard (*Phrynosoma platyrhinos*) in Appendix II, under the provisions of Article II, paragraph 2(a) of the Convention, in accordance with Resolution Conf. 9.24 (Rev. CoP17), Annex 2a, Criterion A and Criterion B.

B. Proponent

United States of America*

C. Supporting statement

1. Taxonomy

1.1 Class: Reptilia

1.2 Order: Squamata

1.3 Family: Phrynosomatidae

1.4 Genus: *Phrynosoma* (Wiegmann 1828)

Species *Phrynosoma platyrhinos* (Girard in Baird and Girard 1852)

Subspecies Two subspecies are recognized: *Phrynosoma platyrhinos platyrhinos* (Girard in Baird and Girard 1852) and *Phrynosoma platyrhinos calidiarum* (Cope 1896).

Phrynosoma platyrhinos platyrhinos, commonly known as the northern desert horned lizard, is found in the United States in California, Idaho, Nevada, Oregon, and Utah.

Phrynosoma platyrhinos calidiarum, commonly known as the southern desert horned lizard occurs in the United States in Arizona, California, Nevada, and Utah, and in Baja California, Mexico.

* *The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat (or the United Nations Environment Programme) concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.*

1.5 Scientific synonyms: *Anota calidiarum*, *Anota platyrhina*, *Doliosaurus platyrhinos*, *Phrynosoma (Doliosaurus) platyrhinos*

1.6 Common names: English: Desert Horned Lizard
French:
Spanish: Lagartija-cornuda de desierto

1.7 Code numbers:

2. Overview

Phrynosoma platyrhinos is a North American horned lizard native to the United States and Mexico. These lizards inhabit desert shrublands and the lower reaches of interior chaparral and Great Basin conifer woodlands from below sea level to approximately 1,980 m in elevation (Hammerson *et al.* 2019; NatureServe 2021). Two subspecies are recognized: 1) *Phrynosoma platyrhinos platyrhinos*, which occurs in the United States in California, Idaho, Nevada, Oregon, and Utah; and 2) *Phrynosoma platyrhinos calidiarum*, which occurs in the United States in Arizona, California, Nevada, and Utah, and in Baja California, Mexico.

The IUCN Red List of Threatened Species categorizes *Phrynosoma platyrhinos* as Least Concern and concludes that the rangewide population size is stable or slowly decreasing (Hammerson *et al.* 2019). However, very little data is collected on this species, and the species is not well studied. No rangewide population studies have been conducted, and population surveys and monitoring are not occurring through much of the species' range. The majority of published literature on the species dates back to the 1970s through early 1990s, with only a few studies published in the 2000s and mid-2010s. The species population size is known to be decreasing in at least some portions of its range, such as in Nevada (AFWA 2022).

This species is subject to international commercial trade, primarily as pets. From 2013 to 2017, 317 shipments totalling 8,568 individuals were declared for import to or export from the United States. Nearly all (99 per cent) *Phrynosoma platyrhinos* traded between the United States and other countries were live animals (USFWS 2021). The majority of traded individuals (96 per cent) were taken from the wild (USFWS 2021). This species is difficult to keep alive in captivity, in part due to its specialized dietary needs; the majority of collected and propagated *Phrynosoma platyrhinos* individuals die in captivity (Hammerson *et al.* 2019; Roberts *et al.* 1995).

Additional threats to the species include habitat loss and fragmentation and direct mortality due to urbanization, agricultural development, energy development, recreational off-road vehicle use, livestock grazing, and invasive non-native plant species (Hammerson *et al.* 2019; NatureServe 2021). Drought may also reduce fitness, survival, and reproduction (Medica *et al.* 1973; NatureServe 2021; Whitford and Bryant 1979). The impacts of collection for trade are magnified by other concurrent threats to the species.

Phrynosoma platyrhinos qualifies for listing in Appendix II by satisfying both Criteria A and B of Annex 2a of Resolution Conf. 9.24 (Rev. CoP17). Because the species faces an entire suite of threats, including international commercial trade, it can be inferred that regulation of trade in the species is necessary to avoid it becoming eligible for inclusion in Appendix I in the near future (Criterion A, Annex 2a, Resolution Conf. 9.24 (Rev. CoP17)). In addition, available information indicates that the regulation of trade in the species is required to ensure that the harvest of specimens from the wild is not reducing the wild population to a level at which its survival might be threatened by continued harvesting or other influences (Criterion B, Annex 2a, Resolution Conf. 9.24 (Rev. CoP17)). Inclusion of this species in CITES Appendix II will ensure that the trade in this lizard species is legal and use is sustainable at a national level and will complement State efforts to manage this species.

3. Species characteristics

3.1 Distribution

Phrynosoma platyrhinos is endemic to Mexico and the United States. In Mexico, the species exists in northern Baja California; in the United States, the species range includes southeastern Oregon, southwestern Idaho, northern Utah, eastern and southern California, Nevada, and western Arizona (Hammerson *et al.* 2019; NatureServe 2021). The extent of the range estimated to be between 207,200 to 2,590,000 km². Populations were previously thought to exist in northwestern Sonora, Mexico and

south of the Gila River in southwestern Arizona, United States. However, horned lizards in these regions are now recognized as the distinct species *Phrynosoma goodei* (Mulcahy *et al.* 2006).

3.2 Habitat

Phrynosoma platyrhinos inhabits desert shrublands and the lower reaches of interior chaparral and Great Basin conifer woodlands from below sea level to approximately 1,980 m in elevation (Hammerson *et al.* 2019; NatureServe 2021). Inhabited shrublands are generally dominated by sagebrush, shadscale, hopsage, creosotebush, or greasewood, where the species occupies sandy or gravelly flat areas such as sandy flats, alluvial fans, washes, brushy dunes, and dune edges (Grismer 2002, St. John 2002, Stebbins 2003). It is most often found in areas of bare ground among openly spaced shrubs.

3.3 Biological characteristics

Phrynosoma platyrhinos is a diurnal ectotherm that depends on heat from its environment to raise its body temperature for activity, feeding, digestion, and reproduction. These lizards regulate body temperature by moving in and out of the sun-shade mosaic of their habitat, basking in the sun, burying themselves in sandy soil, or entering existing burrows dug by other species (NatureServe 2021). In the southernmost portions of the range, some individuals are active on warm nights. Individuals hibernate during colder months. Annual activity varies with local climate across the range of the species; adults are most active from March to July (Pianka and Parker 1975; Tanner and Krogh 1973). Hatchlings and young remain active from July to October (Hult and Germano 2015). When individuals are inactive, they bury themselves in soil or enter burrows (NatureServe 2021).

This species is considered an ant specialist, though its diet consists of a variety of slow-moving insects and occasionally spiders and plant material (Banta 1961; Pianka 1991; Tanner and Krogh 1973). *Phrynosoma platyrhinos* employ a combination of trap-line foraging and ambush predation (Dexter *et al.* 2006). Individuals will move from ant colony to ant colony in search of food. However, in areas of soft sand, they will shake themselves, throwing sand over their bodies leaving only their head exposed, and wait for prey. When agitated, individuals open their mouths and protrude their tongues or raise their tails. Unlike other *Phrynosoma* species, *Phrynosoma platyrhinos* does not squirt blood from its ocular sinus when threatened (Sherbrooke and Middendorf 2001).

Phrynosoma platyrhinos females lay one to two clutches of eggs from April to July and bury their eggs in the soil. The average clutch size is 7. Incubation lasts 50-60 days, and hatchlings emerge from mid-July to mid-September; timing of emergence varies slightly across the range of the species (NatureServe 2021). Individuals live 7 – 8 years (Medica *et al.* 1973; Tanner and Krogh 1973), and become sexually mature at around 22 months (Tanner and Krogh 1973; Nussbaum *et al.* 1983).

3.4 Morphological characteristics

Phrynosoma platyrhinos is a horned lizard characterized by one row of lateral abdominal fringe scales on the side of its body and a blunt snout. Color is variable, including buff, yellowish, reddish, and grayish, with a spotted belly (Pianka 1991). Individuals have a flattened, cryptic body form that allows them to camouflage themselves in their environment (NatureServe 2021). Occipital horns are relatively short, and the longest temporal spine is nearly as long as the occipital horns. These lizards have small throat scales and sometimes have a single row of slightly larger scales on each side of the throat (Pianka 1991).

Female *Phrynosoma platyrhinos* obtain slightly larger body sizes than males. Total length of adults is approximately 140 millimeters (mm). The average snout-vent length (SVL) of adult male *Phrynosoma platyrhinos* is 90-92 mm; females average 94-95 mm SVL. The difference between female and male body sizes is more pronounced the northern portion of the species range (Pianka and Parker 1975).

3.5 Role of the species in its ecosystem

Phrynosoma platyrhinos are both predator and prey in their terrestrial environment. Though *Phrynosoma platyrhinos* consume a variety of slow-moving insects, spiders, and plant materials, this lizard is an ant specialist with a preference for large-bodied ant species (Newbold and MacMahon 2008). *Phrynosoma platyrhinos* are prey for avian predators, snakes, and other lizards (Pianka and Parker 1975).

4. Status and trends

4.1 Habitat trends

There are no estimates of the amount of suitable habitat for *Phrynosoma platyrhinos*. Habitat loss and fragmentation has resulted from urbanization, agricultural development, energy development, off-road vehicle use, livestock grazing, drought, and impacts of non-native species (Hammerson *et al.* 2019; NatureServe 2021).

4.2 Population size

No studies have examined rangewide or localized population sizes of *Phrynosoma platyrhinos*. This species is thought to be relatively common for horned lizards. Total adult population size is unknown but estimated to be greater than 100,000 (Hammerson *et al.* 2019; NatureServe 2021). NatureServe (2022) estimates somewhere between 41 to more than 125 occurrences of the species throughout its range having estimated good viability.

4.3 Population structure

The sex ratio of *Phrynosoma platyrhinos* is not significantly skewed (Pianka and Parker 1975). Both sexes reach adult size by late summer of their first year but do not breed until the following year at the age of approximately 22 months (Pianka and Parker 1975).

Phrynosoma platyrhinos exhibit relatively high reproductive investment compared to other sympatric lizard species, which is likely due to their large body size and cryptic coloring and behavior (Pianka 1991). Compared to other lizards, horned lizards produce large numbers of eggs and expend a large amount of energy on each clutch (Pianka and Parker 1975). Annual survivorship of young is much lower than that of adults (26–38 per cent versus 55–75 per cent) and is highly variable from year to year (Medica *et al.* 1973; Pianka and Parker 1975).

Slight differences in body size, coloration, reproductive behavior, and patterns of daily and seasonal activity have been observed regionally (NatureServe 2021; Pianka and Parker 1975; Tanner and Krogh 1973), suggesting some level of genetic variability and adaptive capacity.

4.4 Population trends

No rangewide population studies have been conducted. The IUCN concludes that the population size is stable or slowly declining (Hammerson *et al.* 2019). However, surveys and population monitoring are not occurring in much of the species' range. In Nevada, population size is declining (AFWA 2022). In Arizona, *Phrynosoma platyrhinos* is abundant and widespread. The population in this State is assumed to be stable (AFWA 2022). Likewise, the species population trend is reported to be stable in Utah (AFWA 2022). The species is poorly studied in Oregon; however, it is ranked by the Oregon Biodiversity Information Center as S3 (vulnerable) (AFWA 2022; NatureServe 2021). In Idaho, population size and trend are unknown; the State rank is S3 (vulnerable) (AFWA 2022).

4.5 Geographic trends

Earlier studies include *Phrynosoma platyrhinos goodei* as a subspecies of *Phrynosoma platyrhinos*. As such, populations of *Phrynosoma platyrhinos* were previously thought to exist in northwestern Sonora, Mexico and south of the Gila River in southwestern Arizona, United States. However, horned lizards in these regions are now recognized as the distinct species *Phrynosoma goodei* (Mulcahy *et al.* 2006). This taxonomic reclassification revealed that the range size of *Phrynosoma platyrhinos* is smaller than originally thought.

In a 1991 study (Pianka), the species was represented by a relatively large number of collection sites well distributed throughout the its geographic range. Though many of these sites have not been revisited, many are thought to remain extant, with somewhere between 41 to more than 125 occurrences throughout the range of the species having estimated good viability (NatureServe 2021). The National System of Biological Information of La Comisión Nacional para el Conocimiento y Uso de la Bioversidad shows 155 records of the species from 1935 to 2010 (Mexican CITES Scientific Authority 2022). The geographic range is assumed to be relatively stable or slowly declining

(NatureServe 2021). However, habitat loss and fragmentation have locally reduced or eliminated previously suitable habitat within the species range (NatureServe 2021; AFWA 2022).

5. Threats

Phrynosoma platyrhinos are collected from the wild for the pet trade or by individuals as curiosities. Reports of *Phrynosoma platyrhinos* collection date back to the early 1900s when collectors moved to new areas to supply the demand of another horned lizard species, *Phrynosoma coronatum*, when *P. coronatum* became scarce due to overexploitation (Jennings 1987). This is indicative of the boom and bust pattern often seen in reptiles in which exploitation and trade shift from one species to another when: 1) a species becomes so depleted or rare that it is no longer commercially exploitable; or 2) a species becomes the subject of stricter regulation, and as such is less exploitable. The majority of collected *Phrynosoma platyrhinos* individuals die in captivity, in part due to difficulty meeting their dietary needs (Hammerson *et al.* 2019; Roberts *et al.* 1995), which may result in individuals continually being replaced with new lizards as pets. Others are released at sites apart from where they were collected, which may not provide adequate habitat or food (Hammerson *et al.* 2019). In the United States, *Phrynosoma platyrhinos* is the most commonly traded species of *Phrynosoma* (USFWS 2021).

Populations of *Phrynosoma platyrhinos* have been locally reduced or eliminated due to habitat loss, fragmentation, and direct mortality as a result of urbanization, agricultural development, energy development, recreational off-road vehicle use, livestock grazing, drought, pesticides, and impacts of non-native species (Hammerson *et al.* 2019; NatureServe 2021). The loss of habitat displaces individuals and populations, while fragmentation creates a barrier for dispersal, prevents population growth by immigration, and may fragment populations into units that are not large enough for long-term viability (NatureServe 2021).

These lizards may persist in areas of low intensity urban or agricultural development. However, population density is generally reduced. Mortality is increased in these areas due to road kills, unnatural increases in human-associated native predators, predation and injuries by domestic animals, and collection by humans as pets (NatureServe 2021).

With sparse vegetation and vast amounts of sunlight, *Phrynosoma platyrhinos* habitat is well suited for solar energy development. Solar panels intercept sunlight before it reaches the ground, negatively impacting *Phrynosoma platyrhinos* thermoregulatory behavior and food sources (NatureServe 2021).

Recreational motor vehicle use has likely eliminated or reduced populations of *Phrynosoma platyrhinos* in some areas (Busack and Bury 1974). Off-road vehicles can cause directly mortality by crushing lizards; destroy vegetative cover used by the species for thermoregulation and to avoid predators; and reduce food supplies by destroying ant colonies (Hammerson *et al.* 2019; NatureServe 2021).

Experimental studies suggest that livestock grazing impacts *Phrynosoma platyrhinos* distribution and abundance. The species response was attributed to changes in habitat structure from livestock grazing (Newbold and MacMahon 2008). Given the species' preference for areas of sparse vegetation, it is unclear whether livestock grazing may also provide some benefit to the species in certain areas (NatureServe 2021).

Drought may reduce fitness, survival, and reproduction. A related species, *Phrynosoma cornutum*, has shown sensitivity to climate-associated fluctuations in food supply, which resulted in lizard weight losses (Whitford and Bryant 1979). *Phrynosoma platyrhinos* exhibits variation in the number of clutches and number of eggs per clutch from year to year (Medica *et al.* 1973). Since fat bodies in the abdominal cavity of reptiles provide much of the nutrition for reproduction, reduced food sources and body weight due to drought may reduce reproductive output in *Phrynosoma platyrhinos* (NatureServe 2021).

Invasive species alter vegetative cover of this species' habitat. *Phrynosoma platyrhinos* show preference for areas of sparse vegetation and may avoid areas invaded by non-native cheatgrass (*Bromus tectorum*) (Newbold 2005). Presence of cheatgrass reduces *Phrynosoma platyrhinos* running speeds by 50 to 70 per cent of their bare-substrate speeds (Newbold 2005). Cheatgrass occurs widely across the range of the species and has likely reduced the distribution and abundance of *Phrynosoma platyrhinos* (NatureServe 2021). In Idaho, xeric habitats such as those required by *Phrynosoma platyrhinos* are being modified by fire and cheatgrass invasion, making this species' habitat requirements scarce (AFWA 2022). In some parts of the species range, other non-native grasses such as crested wheatgrass (*Agropyron cristatum*) has been used to treat burned areas (NatureServe 2021). It is likely that stands of other non-native grasses negatively impact *Phrynosoma platyrhinos* in similar ways as cheatgrass.

6. Utilization and trade

6.1 National utilization

An internet search in 2022 revealed that at least two dealers sell *Phrynosoma platyrhinos* through online platforms, though all dealers were out of stock at the time of the internet search (Backwater Reptiles n.d.; Exotic Pets n.d.). One dealer listed a price of \$39.99 (Backwater Reptiles n.d.). *Phrynosoma platyrhinos* individuals are also collected from the wild as curiosities (Hammerson *et al.* 2019).

6.2 Legal trade

United States trade data were obtained from the U.S. Fish and Wildlife Service Law Enforcement Management Information System (LEMIS) for the years 2013 – 2017 (USFWS 2021). These data are compiled from United States wildlife declaration forms required for international import or export of fish and wildlife species. Table 1 lists the number of *Phrynosoma platyrhinos* individuals and number of shipments of this species that were imported or exported from the United States by year.

Table 1. United States legal imports and exports of *Phrynosoma platyrhinos*. Source: U.S. Fish and Wildlife Service, LEMIS 2021.

Year	Number of Individuals	Number of Shipments
2013	1928	72
2014	1673	55
2015	1869	78
2016	1503	64
2017	1580	47
Total	8553	316

The majority of traded individuals (96 per cent) were taken from the wild, while the remaining 4 per cent were born or bred in captivity (USFWS 2021). Because this species is not CITES-listed, it is not possible to determine whether these animals were bred according to Resolution Conf. 10.16 on *Specimens of animal species bred in captivity*, or what level of wild material is being used as parental breeding stock. Nearly all traded *Phrynosoma platyrhinos* in this dataset (99 per cent) were live animals (USFWS 2021). Of the 8,554 individuals, 99 per cent were reported as commercial trade; 108 individuals were traded for scientific purposes, and 25 were reported as hunting trophies. Over 99 per cent of the animals originated in the United States; only 13 of the animals in trade with the United States were reported to have originated in Mexico. The Netherlands, Japan, and Hong Kong SAR are the top three importers of *Phrynosoma platyrhinos* from the United States. Together, they import nearly 50 per cent of traded individuals (USFWS 2021).

From 2010 to 2020, Mexico imported 1,500 specimens from the United States and re-exported 80 specimens to Holland (30 specimens) and Ukraine (50 specimens). All imports and re-exports were declared with commercial purpose (Mexican CITES Scientific Authority 2022).

6.3 Parts and derivatives in trade

This species is not traded for parts and derivatives; trade is predominantly whole animal or live pet trade.

6.4 Illegal trade

In 2013, a Japanese citizen was arrested at the Mexico City International Airport as she attempted to carry 103 reptiles, including 4 horned lizards from the genus *Phrynosoma*, to Japan. The *Phrynosoma* species she had been carrying was not reported (Robin des Bois 2013).

In 2017, a shipment of 15 live *Phrynosoma platyrhinos* was refused by the United States and seized. The shipment originated in the United States and was intended to be sent to Japan. The shipment was reported as being captive-bred animals for commercial purpose; however, shipment was in violation of California State law, as the exporter did not have a valid Native Reptile Propagation permit. (USFWS 2021).

In 2020, 2 parcels from Mexico were seized in Germany with 26 reptiles, including an undisclosed number of horned lizards from the genus *Phrynosoma*, hidden in candy boxes and disemboweled stitched dolls. Several of the reptiles had suffocated. The *Phrynosoma* species found in these parcels was not reported (Robin des Bois 2021).

The Mexican CITES Law Enforcement Authority shows no record of illegal trade of *Phrynosoma platyrhinos* from 2010 to 2020 (Mexican CITES Scientific Authority 2022).

6.5 Actual or potential trade impacts

Removal of *Phrynosoma platyrhinos* from the wild removes individuals from the gene pool. As population dynamics rely on reproductive contributions of adult animals over time, removal of both young and adults could negatively impact population sizes and genetic variability. Immature *Phrynosoma platyrhinos* become adult-sized within their first year but do not become sexually mature until they reach the age of 22 months (Tanner and Krogh 1973; Nussbaum *et al.* 1983). Removal of young before reproduction would prevent individuals from contributing to population size maintenance and from passing genes to wild young. *Phrynosoma platyrhinos* individuals generally live 7 – 8 years in the wild and produce 1 to 2 clutches of eggs per year, with an average clutch size of 7 (Medica *et al.* 1973; NatureServe 2021; Tanner and Krogh 1973). Removal of mature animals prevents those individuals from contributing to the population, that would otherwise produce multiple clutches over multiple years. Other species of horned lizards have experienced population decline from overexploitation, becoming locally scarce or absent due to collection pressure (Jennings 1987). The impacts of collection for trade are magnified by other concurrent threats to the species' survival in the wild.

7. Legal instruments

7.1 National

Phrynosoma platyrhinos is not protected under the United States Endangered Species Act. States within the United States where this species occurs have individual regulations that provide some protections to the species, but the level of protection varies from State to State, and there are currently no Federal regulations that provide protection for the species at a national level. CITES listing can complement the State regulations and management efforts outlined below to ensure that, at a national level, trade is legal and use is sustainable.

No States list the species as threatened or endangered. However, it is listed as a Species of Greatest Conservation Need in Nevada and is currently being reviewed by the State of Idaho to determine whether or not the species warrants listing as a Species of Greatest Conservation Need in Idaho (AFWA 2022).

In Arizona, bag and possession limits restrict people from taking more than four of any reptile species per year or having more than four, live or dead, in their possession (AFWA 2022; Arizona Game and Fish Department 2021). A hunting or combination license is required for take of all reptile species, and prohibited methods are identified (Arizona Game and Fish Department 2021). Arizona Administrative Code § R12-4-402 states that a person shall not import any live wildlife into the State; export any live wildlife from the State; display, exhibit, give away, lease, offer for sale, possess, propagate, purchase, release, rent, sell, sell as bait, stock, trade, or transport wildlife within the State; or kill any captive live wildlife without authorization via a Federal license or permit (Ariz. Admin. Code § R12-4-402).

In California, it is unlawful to capture, collect, intentionally kill or injure, possess, purchase, propagate, sell, transport, import or export any native reptile, or part thereof, with exceptions (Cal. Code Regs. Tit. 14, § 40). The daily bag limit for *Phrynosoma platyrhinos* is 2 live animals; there is no bag limit for dead specimens (AFWA 2022). *Phrynosoma platyrhinos* is not among the list of species authorized for commercial propagation and possession (Cal. Code Regs. Tit. 14, § 43).

In Idaho, all native reptile species are considered Protected Nongame Species (Idaho Admin. Code r. 13.01.06.200). A person licensed or authorized to hunt or trap in accordance with Chapter 4, Title 36, Idaho Code, may capture alive, or hold in captivity and possess, up to four (4) individuals per species of Idaho native reptiles at the same time, provided such action is not otherwise in violation of Federal, State, county, or city laws, rules, ordinances, or regulations (Idaho Admin. Code r. 13.01.10.100).

In Nevada, the species has a State conservation status as a Priority Species. However, the species is not classified as protected, sensitive, threatened, or endangered in the Nevada Administrative Code and is, therefore, identified in the Code as being unprotected (Nev. Admin. Code § 503.080). Without a license or permit, a person can capture, possess, transport, and breed reptiles classified as unprotected for personal and noncommercial purposes if the number of reptiles possessed does not exceed the possession limits for the species (Nev. Admin. Code § 504.461). Methods of collection are restricted (Nev. Admin. Code § 504.4615). The annual bag limit for *Phrynosoma platyrhinos* is two per year (AFWA 2022). A commercial license may be authorized for possession and propagation of indigenous reptiles (Nev. Admin. Code § 504.460).

In Oregon, *Phrynosoma platyrhinos* is listed as Protected Wildlife. It is unlawful for any person to take, capture, hold, release, or have this species in possession, whole or in part, without an exception provided by Oregon statute or rule or a letter of authorization (Or. Admin. R. 635-044-0430). All wildlife held in captivity, including wildlife held under a permit, license, or condition must be provide minimum care sufficient to preserve the health and well-being of the held wildlife (Or. Admin. R. 635-044-0500).

In Utah, *Phrynosoma platyrhinos* is listed as a Controlled Species with a bag limit of three per day and nine total in possession (Utah Division of Wildlife Resources 2020a). A Controlled Species is defined as a species or subspecies of amphibian or reptile for which a person must acquire certificate of registration or collection permit prior to possessing the animal (Utah Division of Wildlife Resources 2020b). A person may possess, import, export, or transfer to another person a reptile that was previously removed from the wild and is classified as controlled, so long as certain conditions are met (Utah Admin. Code R657-53-5). Utah Administrative Code (R657-53-4) states that a person may not take, possess, import, export, transfer, or release to the wild a reptile or their parts in Utah, or attempt to undertake such activity, with certain exceptions, and that a person may not knowingly disturb the den of any reptile; kill, capture, or harass any reptile within 91 m of a reptile den without first obtaining a wildlife document authorizing that activity; sell a wild caught reptile or amphibian; transfer a wild caught native reptile without completing mandatory reporting; transfer any wild caught native reptile to another individual between April 1 and December 31 without prior approval from the division; collect or attempt to collect a reptile under another individual's collection permit; or collect or attempt to collect a reptile in an area that is closed to collection activities. Reptile species can be propagated if lawfully acquired and no other local, State, or Federal laws prohibit the activity (Utah Admin. Code R657-53-5). Transportation of reptiles through Utah without a wildlife document requires proof of legal possession or origin and that specimens remain in Utah for less than 72 hours. These specimens cannot be sold, transferred, exhibited, displayed, or used for commercial use in Utah (Utah Admin. Code R657-53-5).

Article 84 of Mexico's General of Wildlife states that any harvest of terrestrial and native wildlife species must prove that harvest rates are lower than natural renovation of the population and that harvest will not have a detrimental effect on the population (Mexican CITES Scientific Authority 2022).

7.2 International

This is not a CITES-listed species. We are not aware of any international legal instruments.

8. Species management

8.1 Management measures

Individual States within the United States have set bag and possession limits for *Phrynosoma platyrhinos* within the State or for reptiles and State-listed species more broadly (see section 7.1 Legal Instruments: National). Though the species is poorly studied, State resource managers and researchers have identified habitat modification, loss, and fragmentation as having negative impact on the species. The Idaho Department of Fish and Game is currently reviewing the status of *Phrynosoma platyrhinos* in the State to determine whether or not it qualifies as a Species of Greatest Conservation Need in the State.

8.2 Population monitoring

No studies have examined the rangewide or local population sizes of *Phrynosoma platyrhinos*. We are not aware of any population monitoring taking place.

8.3 Control measures

8.3.1 International

No international control measures were identified.

8.3.2 Domestic

Phrynosoma platyrhinos is a protected species in some of the States where it occurs in the United States. Some of these States also provide broad protections for reptiles and other wildlife. Section 7.1 Legal Instruments: National provides more information about State regulations.

8.4 Captive breeding and artificial propagation

Most *Phrynosoma platyrhinos* specimens in trade are obtained from the wild; however, limited captive breeding does occur. This species is difficult to keep alive in captivity (Hammerson *et al.* 2019; Roberts *et al.* 1995).

8.5 Habitat conservation

Phrynosoma platyrhinos receives protections in multiple States. However, these protections generally apply only to direct impacts to individuals. No conservation measures apply specifically to *Phrynosoma platyrhinos* habitat.

8.6 Safeguards

No additional safeguards were identified beyond State bag and possession limits (see section 7.1 Legal Instruments: National).

9. Information on similar species

Phrynosoma platyrhinos can be distinguished from similar species by “two moderately elongated occipital horns at the back of the head usually not in contact at their base; posterior head margin between occipital horns not indented; nostril openings inside the canthus rostralis; eardrum either exposed or covered with scales; gular scales small, granular, uniform in size or with a single marginal row of slightly enlarged scales on each side of the throat; side of body between limbs with a single row of elongate, pointed fringe scales; smooth ventral scales; tail broadening gradually rather than abruptly at base” (Pianka 1991).

According to the U.S. Fish and Wildlife Service Office of Law Enforcement juvenile *Phrynosoma platyrhinos* may be difficult to differentiate from other *Phrynosoma* species. However, *Phrynosoma platyrhinos* accounts for 92 per cent of the *Phrynosoma* in United States trade.

10. Consultations

The U.S. Fish and Wildlife Service sent a letter of consultation to Mexico as the other range state for this species on April 28, 2022 and received comments from Mexico on May 25, 2022 regarding trade, population, distribution, threats, conservation status, and regulatory protections pertaining to the species. In addition, in the United States, we have an open, transparent process to engage and consult with the public, including States, Tribes, industries, non-governmental organizations, and other interested stakeholders, when it comes to CITES issues at a CoP as outlined in Part 23 of Title 50 of our U.S. Code of Federal Regulations: <https://www.ecfr.gov/current/title-50/chapter-I/subchapter-B/part-23#23.87>. We are one of the few countries in world with such a robust and lengthy process. To see the specific comments on species proposals to amend the CITES Appendices that we received, please visit <https://www.regulations.gov/docket/FWS-HQ-IA-2021-0008/document>. Relevant information, data, and comments we received from Mexico and from our public comment process are incorporated into this proposal.

11. Additional remarks

States within the United States where the species occurs have individual regulations that provide varying levels of protection for the species. However, there are currently no Federal regulations that provide protection for the species at a national level. Inclusion of the species in CITES Appendix II would complement State measures and ensure that specimens entering international trade are acquired legally and sustainably and that international trade is not detrimental to the survival of the species.

12. References

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