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Gastrophryne carolinensis - (Holbrook, 1836)

Eastern Narrowmouth Toad

Unique Identifier: ELEMENT_GLOBAL.2.102651

Element Code: AAABE01010

Informal Taxonomy: Animals, Vertebrates - Amphibians - Frogs and Toads



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Kingdom	Phylum	Class	Order	Family	Genus
Animalia	Craniata	Amphibia	Anura	Microhylidae	Gastrophryne

Genus Size: B - Very small genus (2-5 species)

Check this box to expand all report sections:

Concept Reference

Concept Reference: Frost, Darrel R., ed. 1985. Amphibian species of the world: a taxonomic and geographical reference. Allen Press, Inc., and The Association of Systematics Collections, Lawrence, Kansas. 732 pp.

Concept Reference Code: B85FRO01HQUS

Name Used in Concept Reference: *Gastrophryne carolinensis*

Conservation Status

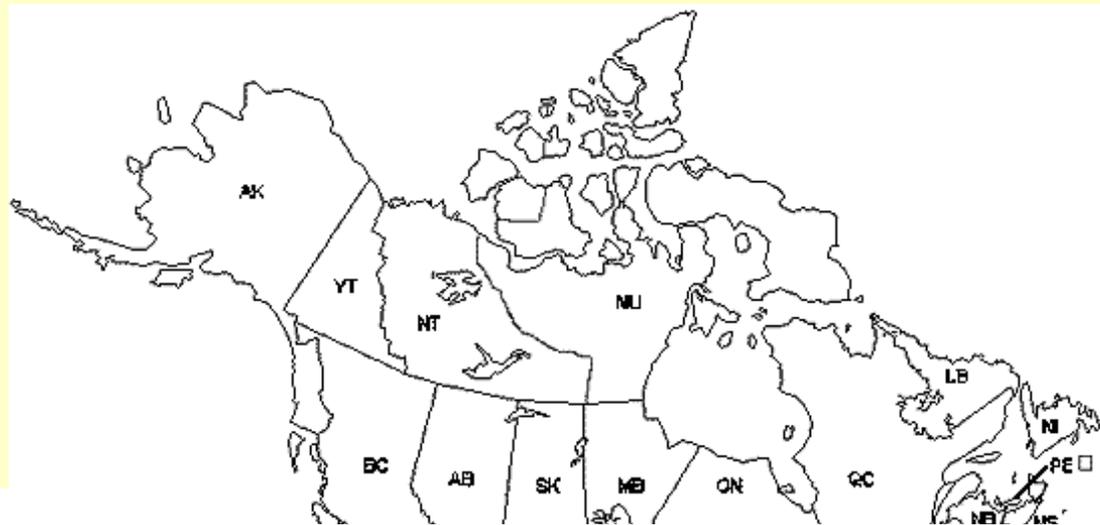
**NatureServe Status****Global Status:** G5**Global Status Last Reviewed:** 24Oct2001**Global Status Last Changed:** 24Oct2001**Rounded Global Status:** G5 - Secure**Nation:** United States**National Status:** N5**U.S. & Canada State/Province Status**

United States	Alabama (S5), Arkansas (S5), Florida (SNR), Georgia (S5), Illinois (S2), Kansas (S1), Kentucky (S4), Louisiana (S5), Maryland (S1S2), Mississippi (S5), Missouri (SNR), North Carolina (S5), Oklahoma (S4), South Carolina (SNR), Tennessee (S5), Texas (S5), Virginia (S4)
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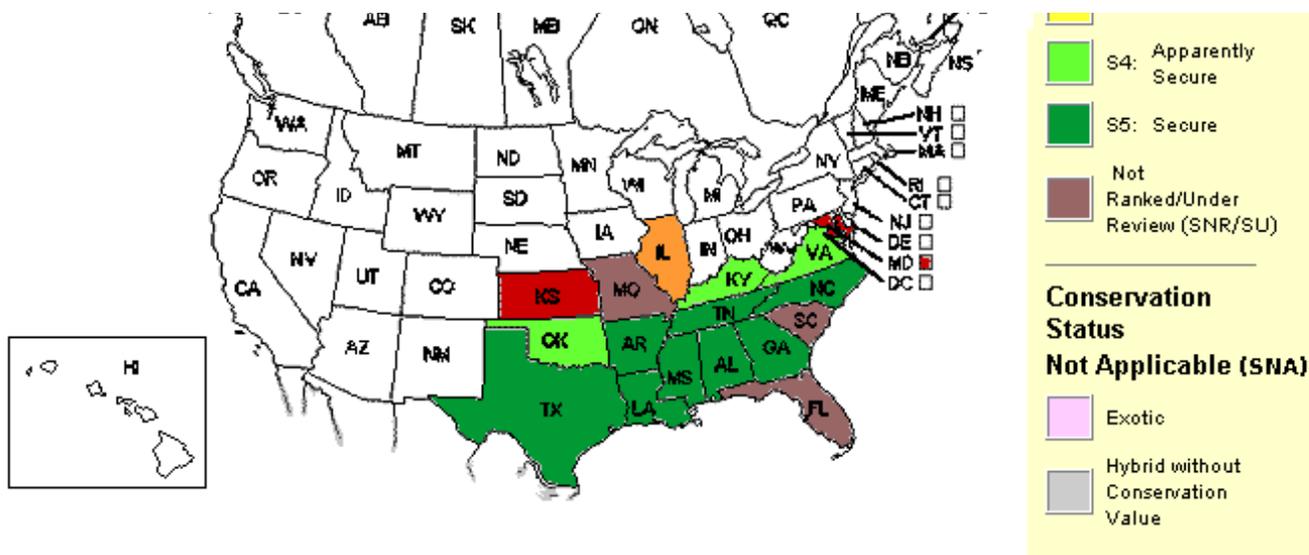
Collapse

Other Statuses**IUCN Red List Category:** LC - Least concern**NatureServe Conservation Status Factors****Global Abundance:** 100,000 - 1,000,000 individuals**Global Abundance Comments:** Total adult population size is unknown but likely exceeds 100,000. In Florida and eastern Texas, common to abundant even in many suburban situations (Bartlett and Bartlett 1999).**Estimated Number of Element Occurrences:****Estimated Number of Element Occurrences Comments:** Represented by many and/or large occurrences throughout most of the range (Nelson 1972).**Global Long Term Trend:** Relatively stable (+/- 25% change)**Fragility:** Moderately vulnerable**Environmental Specificity:** Broad. Generalist or community with all key requirements common.

Distribution

**U.S. States and Canadian Provinces****State/Province Conservation Status**

- SX: Presumed Extirpated
- SH: Possibly Extirpated
- S1: Critically Imperiled
- S2: Imperiled
- S3: Vulnerable
- S4: Apparently



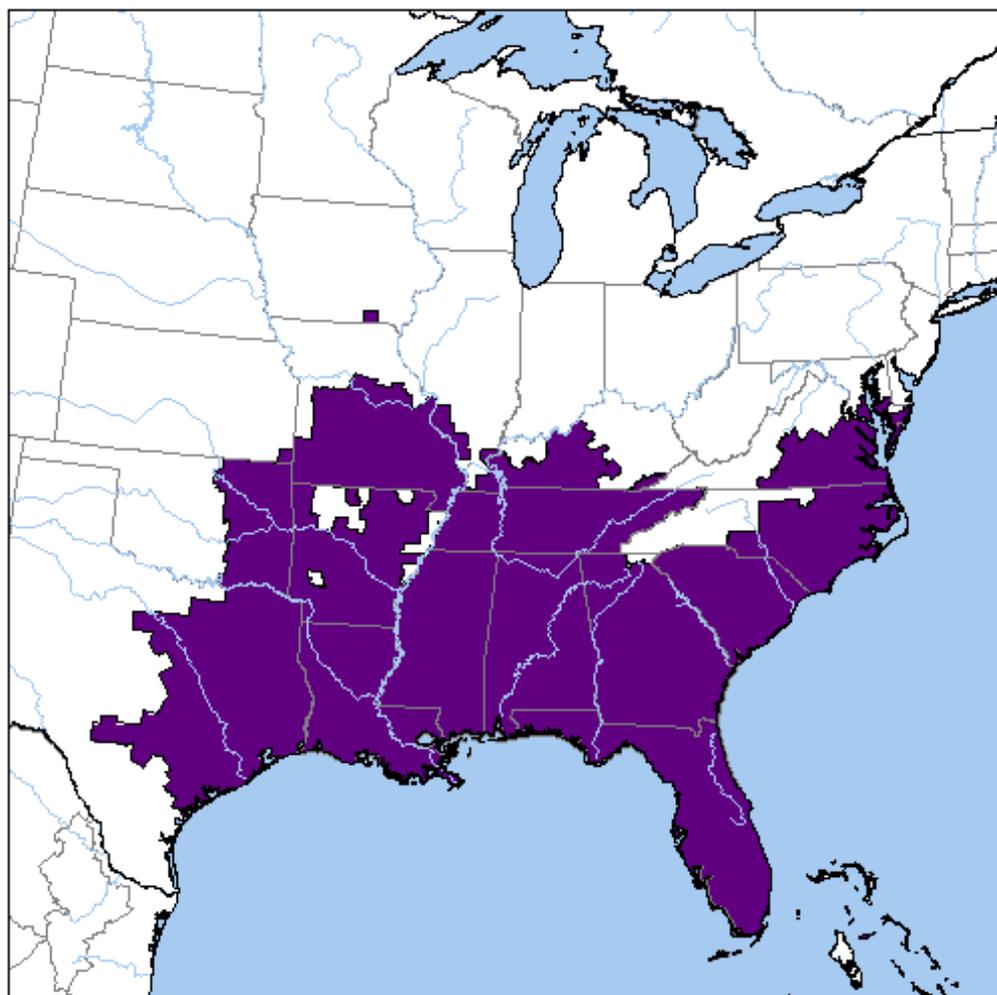
Endemism: endemic to a single nation

U.S. & Canada State/Province Distribution

United States AL, AR, FL, GA, IL, KS, KY, LA, MD, MO, MS, NC, OK, SC, TN, TX, VA

Range Map

Note: Range depicted for New World only. The scale of the maps may cause narrow coastal ranges or ranges on small islands not to appear. Not all vagrant or small disjunct occurrences are depicted. For migratory birds, some individuals occur outside of the passage migrant range depicted. A shapefile of this map is available for download at www.natureserve.org/getData/animalData.jsp.



- Permanent Resident
- Introduced
- Extirpated/Extinct
- National boundary
- Subnational boundary
- River
- Water body





750 0 750 Kilometers



Map created June 2005

Range Map Compilers: IUCN, Conservation International, NatureServe, and collaborators, 2004[Collapse](#)**Global Range:** 200,000-2,500,000 square km (about 80,000-1,000,000 square miles)

Global Range Comments: Southern Maryland to southeastern Kansas, south to Florida Keys and eastern Texas. Scattered disjunct populations along northern and western margins of range (Conant and Collins 1991). Introduced on the Little and Great Bahama banks, and on Grand Cayman Island, Cayman Islands, where very abundant (Schwartz and Henderson 1988, Schwartz and Henderson 1991).

U.S. Distribution by County (based on available natural heritage records) ?**State County Name (FIPS Code)**

IL Hardin (17069), Jackson (17077), Monroe (17133), Pope (17151), Randolph (17157), Union (17181)
 KS Cherokee (20021)
 MD Calvert (24009), Dorchester (24019), Kent (24029), Somerset (24039), St. Marys (24037), Worcester (24047)
 MO Perry (29157)

U.S. Distribution by Watershed (based on available natural heritage records) ?**Watershed Region****Watershed Name (Watershed Code)**

? -
 02 Upper Chesapeake Bay (02060001), Chester-Sassafras (02060002), Severn (02060004), Choptank (02060005), Patuxent (02060006), Blackwater-Wicomico (02060007), Pocomoke (02060009), Lower Potomac (02070011)
 05 Lower Ohio-Bay (05140203), Lower Ohio (05140206)
 07 Cahokia-Joachim (07140101), Upper Mississippi-Cape Girardeau (07140105), Lower Kaskaskia (07140204)
 11 Spring (11070207)

Ecology & Life History

Reproduction Comments: Lays clutch of up to about 850 eggs (divided among several batches), usually after heavy rains in spring or summer. Aquatic larvae hatch in a couple days, metamorphose into terrestrial form in about 3-10 weeks.

Non-Migrant: N**Locally Migrant:** Y**Long Distance Migrant:** N

Mobility and Migration Comments: Migrates between breeding pools and adjacent nonbreeding terrestrial habitats. In northern

Florida, individuals migrated up to 914 m from the nearest breeding pool (Dodd and Cade 1998); movements between a pond and upland habitat were nonrandom, but narrow corridors did not appear to be used (Dodd and Cade 1998).

Riverine Habitat(s): Low gradient, Pool

Lacustrine Habitat(s): Shallow water

Palustrine Habitat(s): FORESTED WETLAND, HERBACEOUS WETLAND, Riparian, SCRUB-SHRUB WETLAND, TEMPORARY POOL

Terrestrial Habitat(s): Cropland/hedgerow, Forest - Conifer, Forest - Hardwood, Forest - Mixed, Savanna, Suburban/orchard, Woodland - Conifer, Woodland - Hardwood, Woodland - Mixed

Special Habitat Factors: Benthic, Burrowing in or using soil, Fallen log/debris

[Collapse](#)

Habitat Comments: Occupies a wide variety of shaded moist habitats. Burrows into soil or hides in or under surface cover or debris when inactive. Males call from sheltered locations, often from beneath objects at water's edge or partially buried in grass (Schwartz and Henderson 1991). Eggs and larvae develop in lakes, ponds, sloughs, flooded roadside ditches, swamps, stream margins, rain puddles, etc. Uses both temporary and permanent waters.

Adult Food Habits: Invertivore

Immature Food Habits: Herbivore

Food Comments: Metamorphosed frogs eat various small arthropods, especially ants, termites, and small beetles. Larvae eat organic debris, algae, and plant tissue.

Adult Phenology: Hibernates/aestivates, Nocturnal

Immature Phenology: Hibernates/aestivates, Nocturnal

Phenology Comments: Most active at night during wet weather of spring and summer.

Colonial Breeder: Y

Length: 4 centimeters

Economic Attributes

Management Summary

Population/Occurrence Delineation

Group Name: NARROWMOUTH TOADS (MICROHYLIDS)

Use Class: Not applicable

Minimum Criteria for an Occurrence: Occurrences are based on evidence of historical presence, or current and likely recurring presence, at a given location. Such evidence minimally includes collection or reliable observation and documentation of one or more individuals (including larvae or eggs) in or near appropriate habitat where the species is presumed to be established and breeding.

Separation Barriers: Busy major highway such that toads rarely if ever cross successfully; urban development dominated by buildings and pavement; the largest, widest, fast-flowing rivers.

Separation Distance for Unsuitable Habitat: 1 km

Separation Distance for Suitable Habitat: 5 km

Separation Justification: Though little information is available, movements appear to be limited. Fitch (1956) determined that

home range size of *Gastrophryne olivacea* in Kansas generally was less than 120 m in diameter (often much less). However, Fitch noted that individuals sometimes move through unsuitable habitat from their home range to breeding ponds, suggesting that these frogs sometimes are more mobile than home range data might imply. In northern Florida, *G. carolinensis* migrated up to 914 m from the nearest breeding pool (Dodd and Cade 1998); movements between a pond and upland habitat were nonrandom, but narrow corridors did not appear to be used (Dodd and Cade 1998). Given that dispersal distances likely exceed annual migration distances, it seems unlikely that locations separated by a gap of less than several kilometers of suitable habitat would represent independent occurrences over the long term.

Inferred Minimum Extent of Habitat Use (when actual extent is unknown): .5 km

Date: 21Sep2004

Author: Hammerson, G.

Population/Occurrence Viability

U.S. Invasive Species Impact Rank (I-Rank)

Not yet
assessed
Not yet
assessed

NatureServe Conservation Status Factors Edition Date: 10Apr2002

NatureServe Conservation Status Factors Author: Hammerson, G.

Element Ecology & Life History Edition Date: 05Jul2001

Element Ecology & Life History Author(s): Hammerson, G.

Zoological data developed by NatureServe and its network of natural heritage programs (see [Local Programs](#)) and other contributors and cooperators (see [Sources](#)).

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Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.
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Ridgely, R.S., T.F. Allnutt, T. Brooks, D.K. McNicol, D.W. Mehlman, B.E. Young, and J.R. Zook.
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NatureServe, Arlington, Virginia, USA.

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Patterson, B.D., G. Ceballos, W. Sechrest, M.F. Tognelli, T. Brooks, L. Luna, P. Ortega, I.
Salazar, and B.E. Young. 2003. Digital Distribution Maps of the Mammals of the Western
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NOTE: Full metadata for the Bird Range Maps of North America is available at:
<http://www.natureserve.org/library/birdDistributionmapsmetadatav1.pdf>.

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