

Species Dossier

State of New York
Endangered Species Working Group
Date compiled:

Common Name: Coal Skink
Scientific Name: *Eumeces antracinus*
Family: Scincidae

I. General Status

Current New York Status: Unlisted
Current Federal Status: Unlisted
Recommended New York Status:

Current status in surrounding states/provinces:

Connecticut: out of range
Massachusetts: out of range
New Jersey: out of range
Ohio:
Ontario: out of range
Pennsylvania:
Quebec: out of range
Vermont: out of range

Current Natural Heritage rank (TNC): G5 (Y) S3
global state

Global and North American Ranges:

Disjunct from New York to North Carolina and Kentucky. Isolated colonies in Ohio and west central Kentucky.

New York's position within global range:
central **peripheral** disjunct

II. Historic New York Status and Distribution (≥ 25 years ago) Provide numbers and/or percent of state occupied and/or number of regions occupied (and basis for estimates), narratives, maps (if available and appropriate), and references/documentation:

Generally, central/western New York where it was locally common. Chemung Co., Genessee Co. (Bergen Swamp), Cayuga Lake Region (Connecticut Hill), Ontario, Monroe, Orleans and Cattaraugus Counties.

III. Current New York Status and Distribution

Provide numbers and/or percent of state occupied and/or number of regions occupied (and basis for estimates), narratives, maps (if available and appropriate), and references/documentation:

Scattered populations through central western New York (by county: Yates, Livingston, Ontario, Seneca, Tioga, Tompkins, Wayne, Steuben, Chemung and Monroe).

IV. Author's Current Estimate of Population/Habitat Trends

Population Trend _____ Essential Habitat Trend

Declining

Stable

Increasing

Unknown

Declining

Stable

Increasing

Unknown

V. Biological Description

1. Reproductive information:

Breeds in New York:

Confirmed in last 2 years yes

Confirmed in last 10 years yes

Confirmed in last 25 years yes

Confirmed prior to 25 years ago yes

Unconfirmed

OR

2. Does not breed in New York; is migrating or seasonal?

OR

3. Species periodically expands or contracts into or out of New York?

Age to sexual maturity Females 140mm (total length) 40mm snout vent length.
Number of breeding attempts per year 1 attempt.
Average number of young per breeding attempt 8-9 eggs.
Estimated number of reproductive years per female

Other narrative on species biology:

The coal skink is a fast moving, highly secretive animal (hiding under shelter objects or burrowing into soft soils) of humid or dry hillsides. Coal skinks spend the day time foraging actively by day and taking shelter by night, severe weather or high temperatures. Courtship and mating among coal skinks occurs soon after emergence usually around late-May. The males may attain an orange throat coloration during this time wherein they actively pursue sexually mature females.

Coal skink eggs are deposited in late June probably within a female excavated burrow in rotting logs, under moss or some other sheltering object. The eggs, at laying range from 6-10mm in size, and are oblong, grayish-white, softshelled structures. The eggs gain size during incubation and may measure up to 17 x 12mm after 30 days. The female actively broods the clutch until hatching to provide moisture as well as protection from small intruders (females also probably remove dead and addled eggs to protect remaining clutch from infection). The eggs undergo an incubation period of 4-5 weeks and hatching occurs sometime in August. Hatchling coal skinks range from 21-23mm snout vent length (47-51mm total length) and resemble the adults in pattern save for orange on the tip of nose and sides of head, deep black legs and feet and a blue tail.

Skinks, adult and young, most likely snap up small arthropods (adults and larvae), annelids and spiders that occur among the debris within their woodland habitat. Very little is known about home range sizes, age/size for sexual maturity (particularly of males), reproduction, nest sites, hibernation sites and other aspects of their life histories.

VI. Habitat

(describe type, vulnerability, distribution and trend in amount overtime, also estimate future trends - - do you expect habitat to be lost in future? Amount, location, type?)

Within its range, Coal Skinks are found on wooded humid portions of hillsides in rotten logs, brush piles and leaves or under loose stones in the vicinity of springs and rocky bluffs. In New York, individuals can be found in deciduous (chestnut, oak, poplar) woods, damp wooded hillsides with an abundance of leaf litter, under rotten logs, stacks of lumber or on dryer shale barrens and slopes. Basking sites are located on the most exposed outcrops. Wintering sites are presumably within rock crevices or mammal burrows.

VII. Discussion of Problems/Threats/Limiting/Overall Vulnerability (of both individuals and essential habitat):

1. Populations occur in small isolated colonies .
2. Habitat loss through human activities and lack of protection for the skink's woodland habitat.
3. Overcollecting and removal of reproducing adults for private or commercial trade.
4. Pollution/herbicide contamination of habitat.
5. Lack of scientific knowledge regarding basic information such as distribution, population densities and ecology.

VIII. Additional Study, Documentation, Research or Management Needed:

1. Intensive surveys into historical and potential habitat to establish basic distribution and population numbers.
2. Identify the age and sex structure of the New York populations.
3. Description of nesting and hibernation sites.
4. Habitat utilization and individual animal movements.

IX. Prognosis for Recovery:

X. Documentation/References:
(also list or attach pertinent references, survey documents, studies, etc.)

10. Anon. 1987. Checklist of the Amphibians, Reptiles, Birds and Mammals of New York State, Including Their Protective Status. N.Y.S. Department of Environmental Conservation Division of Wildlife Nongame Unit.

1. Behler, J.L., F.W. King. 1979. The Audubon Society field guide to North American

reptiles and amphibians. Alfred A. Knopf, New York.

2. Clausen, R.T. 1938. Notes on *Eumeces anthracinus* in Central New York. Copeia 1: 3-7.
3. Collins, J.T. 1990. Standard Common and Current Scientific Names for North American Amphibians and Reptiles. Society for the Study of Amphibians and Reptiles, Herp. Circular No. 19.
4. Conant, R.C., J.T. Collins. 1991. Field Guide to reptiles and amphibians of Eastern/Central North America. Houghton Mifflin Company, Boston, MA.
5. DeGraaf, R.M., D.D. Rudis. 1981. Forest Habitat for Reptiles and Amphibians of the Northeast. U.S. Government Printing Office, Forest Service and U.S. Department of Agriculture Eastern Region.
6. French, T., D. Pence. 1992. Legal Categories of Rare Species in the Northeastern States. Northeast Nongame Technical Committee.
7. Green, N.B., T.K. Pauley. 1987. Amphibians and Reptiles in West Virginia. University of Pittsburgh Press, Pittsburgh, PA.
8. Pleuthner, R. 1981. Summation of Natural Heritage Ranks (for Amphibians and Reptiles).
9. Smith, H.M. 1967 Handbook of Lizards, Lizards of the United States and of Canada. Comstock Publishing Associates, Division of Cornell University Press. Pages 346-351.

XI. Experts Consulted/Reviewers of Dossier:

Prepared By:

Preparer's Status Recommendation:

Endangered
Threatened
Special Concern
Status Unknown
Status Secure
(no listing)