



Common Name: ROCK GNOME LICHEN

Scientific Name: *Cetradonia linearis* (Evans) J.C. Wei & Ahti

Other Commonly Used Names: none

Previously Used Scientific Names: *Gymnoderma lineare* (A. Evans) Yoshimura & Sharp, *Cladonia linearis* A. Evans

Family: Cladoniaceae (reindeer moss)

Rarity Ranks: G2/S1

State Legal Status: Endangered

Federal Legal Status: Endangered

Federal Wetland Status: none

Description: Lichen growing in dense colonies up to 2 square yards (2 square meters) in size. Colonies consist of many, very narrow, strap-shaped, slightly branched lobes (**squamules**), $\frac{3}{8}$ - $\frac{7}{8}$ inch (1 - 2 cm) long and less than $\frac{1}{16}$ inch (1 mm) wide. Upper surface of the lobes is dark blue-gray grading to black at the base; lower surface is shiny white. Lobes grow parallel to the

rock surface but curl up and outward at the tip. Black or dark brown fruiting bodies (**apothecia**), less than $\frac{1}{16}$ inch (1 mm) wide, develop on the tips and, occasionally, the sides of the lobes.

Similar Species: Some reindeer lichens (*Cladonia* spp.) have strap-like lobes but they are not black at the base, and their fruiting bodies are brown or red.

Related Rare Species: Orange bush lichen (*Teloschistes exilis*, Special Concern) grows on the bark of trees and shrubs in the Black Belt prairies in Houston County, and on the bark of oaks in oak-pine woodlands over limestone in Early County; it has many fine, orange branches with round, flat fruiting bodies.

Habitat: Moist, rocky cliff faces at high elevations, usually shaded, often growing with the mosses *Andreaea* or *Grimmia*.

Life History: Lichens are a combination of two very different organisms: an inner core of algae (or cyanobacteria) photosynthesizes and provide nutrients; an outer layer of fungus provides the means of sexual reproduction and protection from the elements. While rock gnome lichen produces spores from fruiting bodies (apothecia) on the strap-like lobes from July–September, it appears that the primary means of reproduction is vegetative, with fragments breaking off the lobes and forming new lichens.

Survey Recommendations: Surveys may be conducted all year.

Range: Endemic to the Southern Appalachians of Georgia, North Carolina, and Tennessee.

Threats: Trampling by climbers and hikers, soil erosion, unauthorized collection. Development of nearby habitat. Clearing for trails or timber removal near populations.

Georgia Conservation Status: Only one population is known; it occurs in a wilderness area in the Chattahoochee National Forest.

Conservation and Management Recommendations: Protect sites from collectors, climbers, and hikers. Avoid logging, clearing, or trail construction in the vicinity.

Selected References:

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Yoshimura, I. and A.J. Sharp. 1968. A revision of the genus *Gymnoderma*. American Journal of Botany 55(5): 635-640.

Author of species account: Linda G. Chafin

Date Compiled or Updated:

L. Chafin, Oct. 2007: original account

K. Owers, Jan. 2010: updated status and ranks, added pictures

G. Krakow, Apr. 2016: updated links under NCNHP. 2001 and Federal Register. 1995.



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Apothecia

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Cetradonia linearis

