

SOUTHEAST GAP ANALYSIS PROJECT

Species Modeling Report

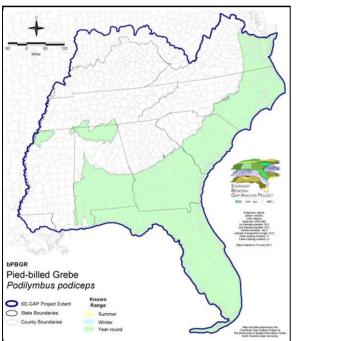
Pied-billed Grebe

Podilymbus podiceps

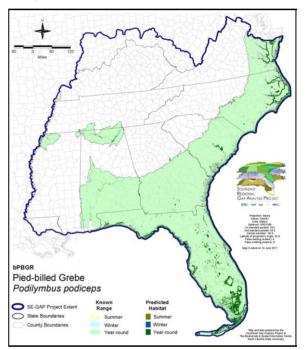
Taxa: Avian Order: Podicipediformes Family: Podicipedidae

SE-GAP Spp Code: **bPBGR** ITIS Species Code: 174505 NatureServe Element Code: ABNCA02010

KNOWN RANGE:



PREDICTED HABITAT:



 Range Map Link:
 http://www.basic.ncsu.edu/segap/datazip/maps/SE_Range_bPBGR.pdf

 Predicted Habitat Map Link:
 http://www.basic.ncsu.edu/segap/datazip/maps/SE_Dist_bPBGR.pdf

 GAP Online Tool Link:
 http://www.gapserve.ncsu.edu/segap/segap/index2.php?species=bPBGR

 Data Download:
 http://www.basic.ncsu.edu/segap/datazip/region/vert/bPBGR_se00.zip

PROTECTION STATUS:

Reported on March 14, 2011

Federal Status: ---

State Status: AR (W), CT (E), CT (E), DE (E), ID (P), IL (RT), KY (E), MA (E), NH (T), NH (T), NJ (E/S), NV (YES), NY (T), RI (State Endangered), UT (None), BC (4 (2005)), QC (Non suivie)

NS Global Rank: G5

NS State Rank: AK (S2S3B), AL (S3B,S5N), AR (S2B,S4N), AZ (S5), CA (SNR), CO (S5B), CO (S5B), CT (S1B), CT (S1B), DC (S4S5N), DE (S1B,S3N), FL (SNRB,SNRN), GA (S4S5), HI (SNA), IA (S4B,S4N), ID (S4B,S3N), IL (S3), IN (S3B), IN (S3B), KS (S2B,S4N), KY (S1B,S4N), LA (S4B,S5N), MA (S1B,S4N), MD (S2B), ME (S4B), MI (S4), MN (SNRB), MO (S3), MS (S5N), MT (S5B), MT (S5B), NC (S3B,S5N), ND (SNRB), NE (S5), NH (S2B), NH (S2B), NJ (S1B,S3N), NM (S5B,S5N), NV (S4), NY (S3B,S1N), OH (S2S3), OK (S5), OR (S5), PA (S3B,S4N), RI (S1B), SC (SNRB,SNRN), SD (S4B), SD (S4B), TN (S2), TX (S5B), UT (S4B,S3S4N), VA (S1S2B,S3N), VT (S2B,S3N), WA (S4B,S5N), WI (S4B), WI (S4B), WV (S2B,S4N), WY (S5), AB (S4), BC (S4B), LB (SNA), MB (S4S5B), MB (S4S5B), NB (S4B), NF (S1B), NS (S4B), NT (SNRB), ON (S4B,S4N), PE (S5B), QC (S4B), SK (S5B), YT (S3B)

SUMMARY OF PREDICTED HABITAT BY MANAGMENT AND GAP PROTECTION STATUS:

| 1 | US FWS | | US Forest Service | | Tenn. Valley Author. | | US DOD/ACOE | |
|----------|-----------------------|---------|-----------------------|-------|----------------------|-----|----------------------|----------|
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 45,225.6 | 3 | 0.9 | < 1 | 0.0 | 0 | 0.0 | (|
| Status 2 | 29,248.2 | 2 | 81.6 | < 1 | 0.0 | 0 | 0.0 | (|
| Status 3 | 710.3 | < 1 | 591.4 | < 1 | 0.0 | 0 | 17,654.1 | - |
| Status 4 | 1.9 | < 1 | 0.0 | 0 | 0.0 | 0 | 13.2 | < 1 |
| Total | 75,186.0 | 5 | 673.9 | < 1 | 0.0 | 0 | 17,667.4 | |
| | US Dept. of Energy | | US Nat. Park Service | | NOAA | | Other Federal Land | |
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 0.0 | 0 | 173,854.2 | 12 | 957.2 | < 1 | 4,372.5 | < 2 |
| Status 2 | 0.0 | 0 | 22,777.6 | 2 | 27,220.3 | 2 | 2.7 | < 2 |
| Status 3 | 0.0 | 0 | 115,424.0 | 8 | 0.0 | 0 | 0.0 | (|
| Status 4 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | (|
| Total | 0.0 | 0 | 312,055.7 | 22 | 28,177.6 | 2 | 4,375.2 | < 1 |
| | Native Am. Reserv. | | State Park/Hist. Park | | State WMA/Gameland | | State Fores | |
| | ha | % | ha | % | ha | % | ha | % |
| Status 1 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | (|
| Status 2 | 0.0 | 0 | 36.5 | < 1 | 256,230.9 | 18 | 0.0 | (|
| Status 3 | 0.0 | 0 | 57,761.6 | 4 | 5,818.0 | < 1 | 7,535.0 | < |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 244.5 | < 1 | 0.0 | (|
| Total | 0.0 | 0 | 57,798.0 | 4 | 262,293.4 | 18 | 7,535.0 | < : |
| | State Coastal Reserve | | ST Nat.Area/Preserve | | Other State Lands | | Private Cons. Easemt | |
| | ha | % | ha | % | ha | % | ha | 9 |
| Status 1 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | |
| Status 2 | 10,924.9 | < 1 | 17,153.0 | 1 | 0.0 | 0 | 53.9 | < 2 |
| Status 3 | 0.0 | 0 | 899.5 | < 1 | 816.2 | < 1 | 3,158.9 | < 2 |
| Status 4 | 0.0 | 0 | 0.0 | 0 | 5.4 | < 1 | 0.0 | (|
| Total | 10,924.9 | < 1 | 18,052.5 | 1 | 821.6 | < 1 | 3,212.8 | < : |
| | Private Land - I | No Res. | | Water | | | Overa | ill Tota |
| | ha | % | ha | % | | | ha | 9 |
| Status 1 | 0.0 | 0 | 0.0 | 0 | | | 224,410.4 | 1 |
| Status 2 | 0.0 | 0 | 0.0 | 0 | | | 363,729.6 | 2 |
| Status 3 | 0.0 | 0 | 0.0 | 0 | | | 210,368.9 | 1 |
| Status 4 | 611,934.8 | 43 | 22,976.9 | 2 | | | 635,419.4 | 4 |
| Total | 611,934.8 | 43 | 22,976.9 | 2 | | | 1,433,928.3 | 10 |

GAP Status 1: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a natural state within which disturbance events (of natural type, frequency, and intensity) are allowed to proceed without interference or are mimicked through management.

GAP Status 2: An area having permanent protection from conversion of natural land cover and a mandated management plan in operation to maintain a primarily natural state, but which may receive use or management practices that degrade the quality of existing natural communities.

GAP Status 3: An area having permanent protection from conversion of natural land cover for the majority of the area, but subject to extractive uses of either a broad, low-intensity type or localized intense type. It also confers protection to federally listed endangered and threatened species throughout the area.

GAP Status 4: Lack of irrevocable easement or mandate to prevent conversion of natural habitat types to anthropogenic habitat types. Allows for intensive use throughout the tract. Also includes those tracts for which the existence of such restrictions or sufficient information to establish a higher status is unknown.

PREDICTED HABITAT MODEL(S):

Year-round Model:

Habitat Description:

ription: Breeds in emergent vegetation along lake, pond, reservoir, marsh, slough, and slow-moving stream and river margins; preferably fresh water but occasionally brackish. Fairly common throughout the region during non-breeding season (wintering). Breeds mostly in the coastal plain and very erratically in the Piedmont and mountains. Forages on aquatic vegetation and insects, fish, crustaceans, etc. by diving in open waters, along the shore among emergent plants, and under mats of floating vegetation (Hamel 1992, Muller and Storer 1999). M. Rubino, 5nov04.

Hydrography Mask:

Utilizes flowing water features with buffers of 250m from and 4000m into selected water features. Utilizes open water features with buffers of 250m from and 4000m into selected water features. Utilizes wet vegetation features with buffers of 250m from and 4000m into selected vegetation features.

Selected Map Units:

| Functional Group | Map Unit Name |
|----------------------------------|--|
| Brackish Tidal Marsh & Wetland | Atlantic Coastal Plain Central Salt and Brackish Tidal Marsh |
| Brackish Tidal Marsh & Wetland | Atlantic Coastal Plain Embayed Region Tidal Salt and Brackish Marsh |
| Brackish Tidal Marsh & Wetland | Atlantic Coastal Plain Indian River Lagoon Tidal Marsh |
| Brackish Tidal Marsh & Wetland | Atlantic Coastal Plain Northern Tidal Salt Marsh |
| Brackish Tidal Marsh & Wetland | Florida Big Bend Salt-Brackish Tidal Marsh |
| Brackish Tidal Marsh & Wetland | South Florida Everglades Sawgrass Marsh |
| Freshwater Tidal Marsh & Wetland | Atlantic Coastal Plain Central Fresh-Oligohaline Tidal Marsh |
| Freshwater Tidal Marsh & Wetland | Atlantic Coastal Plain Embayed Region Tidal Freshwater Marsh |
| Freshwater Tidal Marsh & Wetland | Atlantic Coastal Plain Northern Fresh and Oligohaline Tidal Marsh |
| Freshwater Tidal Marsh & Wetland | Florida Big Bend Fresh-Oligohaline Tidal Marsh |
| Water | Open Water (Brackish/Salt) |
| Water | Open Water (Fresh) |
| Wetlands | Atlantic Coastal Plain Blackwater Stream Floodplain Forest - Herbaceous Modifier |
| Wetlands | Atlantic Coastal Plain Clay-Based Carolina Bay Herbaceous Wetland |
| Wetlands | Atlantic Coastal Plain Depression Pondshore |
| Wetlands | Atlantic Coastal Plain Large Natural Lakeshore |
| Wetlands | Atlantic Coastal Plain Northern Pondshore |
| Wetlands | Central Appalachian Floodplain - Herbaceous Modifier |
| Wetlands | Central Appalachian Riparian - Herbaceous Modifier |
| Wetlands | Central Florida Herbaceous Pondshore |
| Wetlands | East Gulf Coastal Plain Large River Floodplain Forest - Herbaceous Modifier |
| Wetlands | East Gulf Coastal Plain Northern Depression Pondshore |
| Wetlands | East Gulf Coastal Plain Southern Depression Pondshore |
| Wetlands | Lower Mississippi River Bottomland Depressions - Herbaceous Modifier |
| Wetlands | South-Central Interior Large Floodplain - Herbaceous Modifier |
| Wetlands | Southern Coastal Plain Spring-run Stream Aquatic Vegetation |
| Wetlands | Southern Piedmont Large Floodplain Forest - Herbaceous Modifier |
| Wetlands | Unconsolidated Shore (Lake/River/Pond) |

CITATIONS:

American Ornithologists' Union (AOU), Committee on Classification and Nomenclature. 1983. Check-list of North American Birds. Sixth Edition. American Ornithologists' Union, Allen Press, Inc., Lawrence, Kansas.

Andrle, R.F., and J.R. Carroll. 1988. The atlas of breeding birds in New York State. Cornell Univ., Ithaca, New York. 551 pp.

Chabreck, R. H. 1963. Breeding habits of the pied-billed grebe in an impounded coastal marsh in Louisiana. Auk 80:447-52.

Faaborg, J. 1976. Habitat selection and territorial behavior of the small grebes of North Dakota. Wilson Bulletin 88:390-399.

Forbes, M. R. L., H. P. Barkhouse, and P. C. Smith. 1989. Nest-site selection by pied-billed grebes PODILYMBUS PODICEPS. Ornis Scandinavia 20:211-8.

| For more information:: | SE-GAP Analysis Project / BaSIC 127 David Clark Labs Dept. of Biology, NCSU Raleigh, NC 27695-7617 (919) 513-2853 | Compiled: 15 September 2011 This data was compiled and/or developed by the Southeast GAP Analysis Project at The Biodiversity and Spatial Information Center North Carolina State University |
|------------------------|---|--|
| | U.S. Fish and Wildlife Service (USFWS). 1995. Migratory nongame birds of management concern in the United Migratory Bird Management, U.S. Fish and Wildlife Service, Washington, DC. 22 pp. | d States:The 1995 list. Office of |
| | U.S. Fish and Wildlife Service (USFWS). 1987. Migratory nongame birds of management concern in the United Migratory Bird Management, U.S. Fish and Wildlife Service, Washington, DC. 25 pp. | d States:The 1987 list. Office of |
| | Terres, J.K. 1980. The Audubon Society encyclopedia of North American birds. Alfred A. Knopf, New York. | |
| | Stiles, F.G., and A.F. Skutch. 1989. A guide to the birds of Costa Rica. Comstock Publ. Associates, Cornell Unive 511 pp. | ersity Press, Ithaca, New York. |
| | Stewart, R.E. 1975. Breeding birds of North Dakota. Tri-College Center for Environmental Studies, Fargo ND. 2 pp. | 295 |
| | Simpson MB Jr. 1992. Birds of the Blue Ridge Mountains. Chapel Hill and London: University of North Carolina Press. | 1 |
| | Sealy, S. G. 1978. Clutch size and nest placement of the pied-billed grebe in Manitoba. Wilson Bulletin 90:301 2. | - |
| | Root, T. 1988. Atlas of wintering North American birds: An analysis of Christmas Bird Count data. University of pp. | Chicago Press. 336 |
| | Palmer, R. S. (editor). 1962. Handbook of North American birds. Vol. 1. Loons through flamingos. Yale University pp. | ity Press, New Haven. 567 |
| | Nudds, T. D. 1982. Ecological separation of grebes and coots:interference competition or microhabitat selecti 514. | on? Wilson Bulletin 94:505- |
| | Muller, M.J. and R.W. Storer. 1999. Pied-billed grebe (Podilymbus podiceps). In A. Poole and F. Gill, eds., The 410. The Academy of Natural Sciences, Philadelphia and The American Ornithologists' Union, Washington, DC | |
| | Kaufman K. 1996. Lives of North American Birds. Boston, New York: Houghton Mifflin Company. | |
| | Johnsgard, P. A. 1987. Diving birds of North America. Univ. Nebraska Press, Lincoln. xii + 292 pp. | |
| | Herkert, J. R., editor. 1992. Endangered and threatened species of Illinois:status and distribution. Vol. 2:Anim Protection Board. iv + 142 pp. | als. Illinois Endangered Species |
| | Harrison, H.H. 1979. A field guide to western birds' nests. Houghton Mifflin Company, Boston. 279 pp. | |
| | Hamel, P. B. 1992. The land manager's guide to the birds of the south. The Nature Conservancy, Chapel Hill, N appendices. | North Carolina. 367 pp + several |
| | Glover, F. A. 1953. Nesting ecology of the pied-billed grebe in northwestern Iowa. Wilson Bulletin 65:32- 9. | |
| | Gibbs, J.P., and S.M. Melvin. 1992. Pied-billed grebe, PODILYMBUS PODICEPS. Pages 31-49 in K.J. Schneider a Migratory nongame birds of management concern in the Northeast. U.S. Fish and Wildlife Service, Newton Co | |
| | Fussell, J.O. III. 1994. A birder's guide to coastal North Carolina. Chapel Hill and London: The University of Nor Press. | th Carolina |
| | Fussell, J. III and M. Lyons. 1990. Birds of the Outer Banks [pamphlet]. Eastern National Parks and Monument Refuge Society. | Association Coastal Wildlife |
| | Fredrickson, L.H., and F.A. Reid. 1986. Wetlands and riparian habitats:a nongame management overview. Pag and R. L. Clawson, (eds.) Management of nongame wildlife in the Midwest:a developing art. Proc. Symp. 47th | - |

(919) 513-2853 www.basic.ncsu.edu/segap

his data was compiled and/or developed y the Southeast GAP Analysis Project at The Biodiversity and Spatial Information Center, North Carolina State University.