Red-necked Phalarope

Phalaropus lobatus Order: Charadriiformes

Conservation Status

Heritage Agency

G Rank: G4G5 USFWS/NOAA: BLM: AA:

S Rank: S4S5B SOA: Species of Greatest Conservation Need USFS: IUCN: Least Concern

Final Rank

Conservation category: V. Orange

V = unknown status and either high biological vulnerability or high action need

Category Range Score

Status: -20 to 20 0

Biological: -50 to 50 -44

Higher numerical scores denote greater concern

-40 to 40

4

Status - variables measure the trend in a taxon's population status or distribution. Higher status scores denote taxa with known declining trends. Status scores range from -20 (increasing) to 20 (decreasing).

Action:

Score

Population Trend (-10 to 10)

0

Increased nesting densities on long-term plots since 1981 near Prudhoe Bay (Troy 1996). Declines in eastern North America (Rubega et al 2000). Numbers in some parts of arctic range have declined (Morrison et al. 2001). Possibly declining (Morrison et al. 2006).

Distribution Trend (-10 to 10)

0

Unknown.

Status Total:

Class: Aves

Biological - variables measure aspects of a taxon's distribution, abundance and life history. Higher biological scores suggest greater vulnerability to extirpation. Biological scores range from -50 (least vulnerable) to 50 (most vulnerable).

Score

Population Size (-10 to 10)

-10

State population ~92,900 based on fall counts and a partial count of 670,500 based on number of birds from 4 sites between northern and western Alaska during the breeding season (Gill et al. 1999).

Range Size (-10 to 10)

-10

Breeds in southern and western Alaska from the Copper River Delta and Prince William Sound (Isleib and Kessel 1973) to Alaska Peninsula and the Aleutian Islands north along the Bering Sea, Chukchi coasts (Cramp and Simmons 1983, Hayman et al. 1986), and Beaufort Seas. Breeds inland along a band that roughly follows the Yukon River to the Canadian border (Campbell et al. 1990). >400,000 km2.

Population Concentration (-10 to 10)

-10

Does not concentrate.

Reproductive Potential

Age of First Reproduction (-5 to 5)

-5

1st year (Hilden and Vuolanto 1972, Reynolds 1987, Schamel and Tracy 1991).

Number of Young (-5 to 5)

1

Typically 4 eggs (Rubega et al. 2000).

Ecological Specialization

Dietary (-5 to 5)

Small aquatic invertebrates (Hohn 1968).

Habitat (-5 to 5) -5

Breeds in tundra or tundra-forest transition areas near freshwater lakes, pools, bogs, and marshes, streams, or on marine or riverine islands with freshwater (Hilden and Vuolanto 1972, Reynolds 1987). Found in heath covered slopes above willow-alder zone on Y-K Delta (Cramp and Simmons 1983); water, low relief, high percentage of grass, and low percentage of shrubs near Prudhoe Bay (Rodrigues 1994). During migration, occurs in inshore and offshore marine waters, tidal ponds, sloughs, lakes, and ponds (Armstrong 1995).

Biological Total: -44

Action - variables measure current state of knowledge or extent of conservation efforts directed toward a given taxon. Higher action scores denote greater information needs due of lack of knowledge or conservation action. Action scores range from -40 (lower needs) to 40 (greater needs).

Score

2

2

Management Needs (-10 to 10)

Monitoring Needs (-10 to 10)

Protected under the Migratory Bird Treaty Act (MBTA 1918).

Monitored locally (i.e. long-term plots near Prudhoe Bay (Troy 1996)).

Research Needs (-10 to 10)

Oil and gas development potential threat (Rubega et al. 2000). Introduced species, including fox and rats are a concern (ADFG 2005a).

Survey Needs (-10 to 10) -10

Individuals were radio-equipped on the Arctic Coastal Plain and telemetry was conducted from aircraft to post-breeding assess abundance and distribution (Taylor et al. 2008). Distribution has also been successfully captured by general shorebird surveys looking at the postbreeding distribution across the entire Arctic Coastal Plain ending in 2006 using aerial surveys (Taylor et al. 2008), post-breeding use of coastal habitats initiated in 2005 using ground-based and aerial surveys on the Arctic National Wildlife Refuge (Kendall et al. 2008), a broad-scale montane and alpine nesting bird inventory in the Arctic and Southwest Alaska Networks starting in 2001 where this species was detected (Tibbitts et al. 2006, Ruthrauff et al. 2007), surveys in Teshekpuk Lake Special Area and the National Petroleum Reserve (Lanctot et al. 2008b), on the west coast of Alaska during spring and fall migration (Gill et al. 2008a), and an inventory of birds inhabiting lowlands of the Alaska Peninsula ending in 2007 (Savage and Tibbitts 2008). ALMS has also been successful at detecting this species in a number of locations across Alaska (USGS 2008a). Implementation of PRISM statewide also has the potential to improve knowledge of distribution.

Action Total: 4

Supplemental Information - variables do not receive numerical scores. Instead, they that are used to sort taxa to answer specific biological or managerial questions.

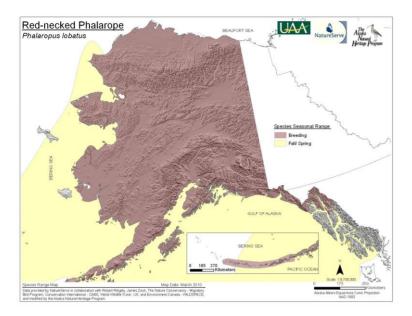
Harvest: Substantial, regulations

Seasonal Occurrence: Breeding

Taxonomic Significance: Monotypic species

% Global Range in Alaska: >10%
% Global Population in Alaska: <25%
Peripheral: No

Range Map



References

Alaska Department of Fish and Game (ADFG). 2005a. Our wealth maintained: a strategy for conserving Alaska's diverse wildlife and fish resources, a Comprehensive Wildlife Conservation Strategy emphasizing Alaska's nongame species. Submitted to the U.S. Fis

Alaska Migratory Bird Co-management Council (AMBCC). 2007. Subsistence harvest survey data 1995-2000. Available online at: http://alaska.fws.gov/ambcc/harvest.htm.

Armstrong, R. H. 1995. Guide to the birds of Alaska, 4th ed. Alaska Northwest Books, Anchorage, AK. 322 pp.

Campbell, R. W., N. K. Dawe, I. McTaggart-Cowan, J. M. Cooper, G. W. Kaiser, and M. C. E. McNall. 1990. The birds of British Columbia. Volumes 1 and 2. R. Br. Columbia Mus., Victoria, B.C.

Cramp, S. and K. E. L. Simmons (eds.). 1983. The birds of the Western Palearctic. Vol. 3: waders to gulls. Oxford University Press, Oxford.

Gill, R. E., T. L. Tibbitts, and C. M. Handel. 1999. Profiles of potential Western Hemisphere Shorebird Reserve Network Sites in Alaska. Unpublished report, Alaska Biological Science Center, U. S. Geological Survey, Anchorage, AK. 134 pp.

Gill, B., D. Ruthrauff, and L. Tibbitts. 2008a. USGS Alaska Science Center shorebird avian influenza monitoring efforts. Pp.10 in Summaries of ongoing or new studies of Alaska shorebirds during 2007 (J. Leibezeit, ed.), Alaska Shorebird Group.

Hayman, P., J. Marchant, and T. Prater. 1986. Shorebirds: an identification guide to the waders of the world. Houghton Mifflin Co., Boston.

Hilden, O. and S. Vuolanto. 1972. Breeding biology of the Red-necked Phalarope Phalaropus lobatus in Finland. Ornis Fenn. 49:57-85.

Hohn, E. O. 1968. Some observations on the breeding of Northern Phalaropes at Scammon Bay, Alaska. Auk 85:316-317.

Isleib, M. E. and B. Kessel. 1973. Birds of the North Gulf Coast-Prince William Sound region, Alaska. Biological Papers of the University of Alaska No. 14. University of Alaska, Fairbanks. 149 pp.

Kendall, S., A. Taylor, and S. Brown. 2008. Post-breeding studies on the Arctic National Wildlife Refuge, Alaska. Pp.23 in Summaries of ongoing or new studies of Alaska shorebirds during 2007 (J. Leibezeit, ed.), Alaska Shorebird Group.

Lanctot, R., J. Johnson, and B. Andres. 2008b. Avian influenza sampling and shorebird surveys in the Teshepuk Lake Special Areas of the National Petroleum Reserv - Alaska, in 2007. Pp.27 in Summaries of ongoing or new studies of Alaska shorebirds during 2

Migratory Bird Treaty Act (MBTA) of July 3, 1918, Ch. 128, 40 Stat. 755 (1918) (current version at 16 U.S.C. §§ 703-712).

Morrison, R. I. G., R. E. Gill, Jr., B. A. Harrington, S. Skagen, G. W. Page, C. L. Gratto-Trevor, S. M. Haig. 2001. Estimates of shorebird populations in North America. Occasional Paper No. 104, Canadian Wildlife Service, Ottawa, Ontario, 64 pp.

Morrison, R. I. G., B. J. McCaffery, R. E. Gill, S. K. Skagen, S. L. Jones, G. W. Page, C. L. Gratto-Trevor, and B. A. Andres. 2006. Population estimates of North American Shorebirds, 2006. Wader Study Group Bulletin 111:67-85.

Reynolds, J. D. 1987. Mating system and nesting biology of the Red-necked Phalarope Phalaropus lobatus: What constrains polyandry? Ibis 129:225-242.

Rodrigues, R. 1994. Microhabitat variables influencing nest-site selection by tundra birds. Ecological Applications 4:110-116.

Rubega, M. A., D. Schamel, and D. M Tracy. 2000. Red-necked Phalarope (Phalaropus lobatus). The Birds of North America. No. 538: American Ornithologists' Union. The Academy of Natural Sciences of Philadelphia, Philadelphia, PA.

Ruthrauff, D., L. Tibbitts, B. Gill, and C. Handel. 2007. Inventory of montane-nesting birds in Katmai and Lake Clark National Parks and Preserves. Unpublished final report for National Park Service. USGS, Alaska Science Center, Anchorage, AK.

Savage, S. and L. Tibbitts. 2008. Alaska Peninsula shorebird inventory. Pp.33 in Summaries of ongoing or new studies of Alaska shorebirds during 2007 (J. Leibezeit, ed.), Alaska Shorebird Group.

Schamel, D. and D. M. Tracy. 1991. Breeding site fidelity and natal philopatry in the sex role-reversed Red and Rednecked phalaropes. Journal of Field Ornithology 62:390-398.

Taylor, A., A. Powell, R. Lanctot, S. Kendall, and D. Nigro. 2008. Distribution, movements, and physiology of post-breeding shorebirds on Alaska's Arctic Coastal Plain. Pp.37 in Summaries of ongoing or new studies of Alaska shorebirds during 2007 (J. Leib

Tibbitts, T. L., D. R. Ruthrauff, R. E. Gill, Jr., and C. M. Handel. 2006. Inventory of montane-nesting birds in the Arctic Network of National Parks, Alaska. Arctic Network Inventory and Monitoring Program, USDI National Park Service. NPS/AKARCN/NRTR-200

Troy, D. M. 1996. Population dynamics of breeding shorebirds in arctic Alaska. Int. Wader Study 8:15-27.

U.S. Fish and Wildlife Service (USFWS). 2006c. Regulations for the 2006 Alaska subsistence spring/summer Migratory Bird Harvest. Alaska Migratory Bird Co-Mgt Council, U. S. Fish and Wildlife Service, Anchorage, AK.

U.S. Geological Survey (USGS). 2008a. Alaska Off-road Breeding Bird Survey: Database of Bird Distribution (ALMS). Available online at http://www.absc.usgs.gov/research/bpif/OBS/database/index.html. (Accessed 5/15/2008).

Version date: 1/2/2013

Report authors: K. Walton, T. Gotthardt, and T. Fields

Alaska Natural Heritage Program University of Alaska Anchorage

Anchorage, AK 99501

For details on the development of the ASRS and criteria, please see: Gotthardt, T. A., K. M. Walton, and T. L. Fields. 2012. Setting Conservation Priorities for Alaska's Wildlife Action Plan. Alaska Natural Heritage Program, University of Alaska Anchorage, AK.