Appendix C – Research

Research Needs

Specific research questions have been identified as important to the management of Cypress Island. DNR will keep and update this list for reference when funding and requests for research opportunities arise.

Sources for research staff include but are not limited to DNR staff or contracts, Washington Department of Fish and Wildlife scientists, university faculty and students, recognized researchers requesting opportunities to conduct approved research, and volunteers.

Ecosystems

- Fire ecology and fire history of forest and bald communities on Cypress Island.
- Effect of parent material on water and sediment chemistry of wetlands, streams, ponds and lakes and associated aquatic flora and fauna.
- Population inventories of wildlife, to include bats, forest interior birds and neotropical migrants, cavity nesters, raptors, small mammals, reptiles, amphibians, larger mammals, aquatic and terrestrial invertebrates, butterflies and other insects.
- Nest predation in edge habitat along roads and trails.
- Snag density and snag use by wildlife.
- Habitat associations of target wildlife species.
- Condition of salt marshes and anthropogenic effects.
- Island vegetation to include overstory, understory woody and herbaceous species, mosses, lichen and ferns

Exotic Species

- Update of the Cypress Island Weed Plan with species list and mapped locations of all exotic plants; success of eradication techniques used in the Weed Plan.
- Introduced aquatic flora and fauna in lakes and ponds and effects of exotic fish on aquatic systems.
- Food habits, sex ratio, reproductive success and numbers of Red fox.

Aquatic Environment

- Community types and condition of aquatic lands surrounding island, including eelgrass and kelp beds, substrate, and species.
- Conduct a reconnaissance and survey for possible forage fish spawning beaches locations.
- Complete a “rapid nearshore inventory” of Cypress Island to identify significant aquatic habitat in the nearshore areas.
- Inventory structures including pilings, docks, etc. Determine status and develop plan for removal of derelict structures.