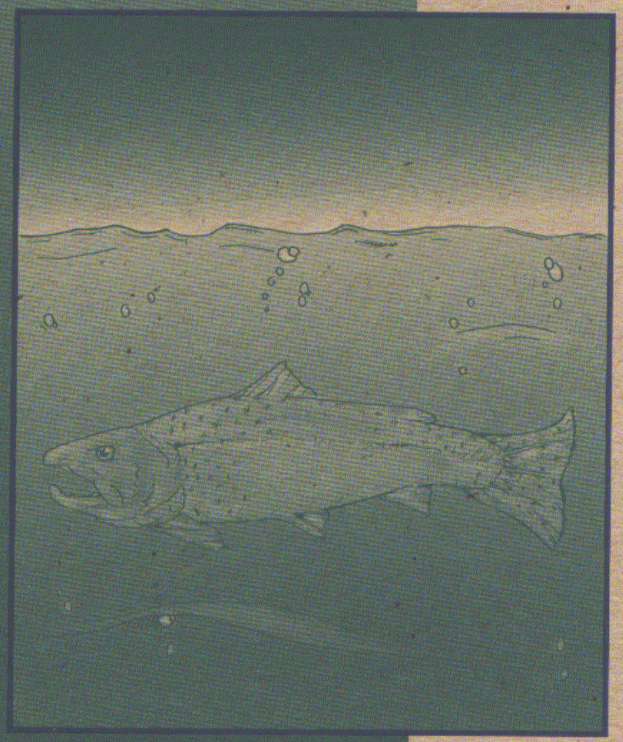
Endangered and Threatened Species

of the Lower Columbia River



A Coloring Book

CREDITS

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What's so important about endangered and threatened species?

We get warning signals from lots of places...from flashing yellow lights...from loud sirens...from big signs and computer "beeps." They all tell us..."heads up...pay attention...something's happening and you should care."

Nature sends out warnings too. When changes are taking place in our environment that may someday affect human health, certain animals and plants find it more difficult to survive. Their existence becomes "threatened." If conditions get worse, their futures become "endangered." Ultimately, like the dinosaurs, they may become "extinct."

Threatened and endangered species are nature's way of warning us that we need to act.

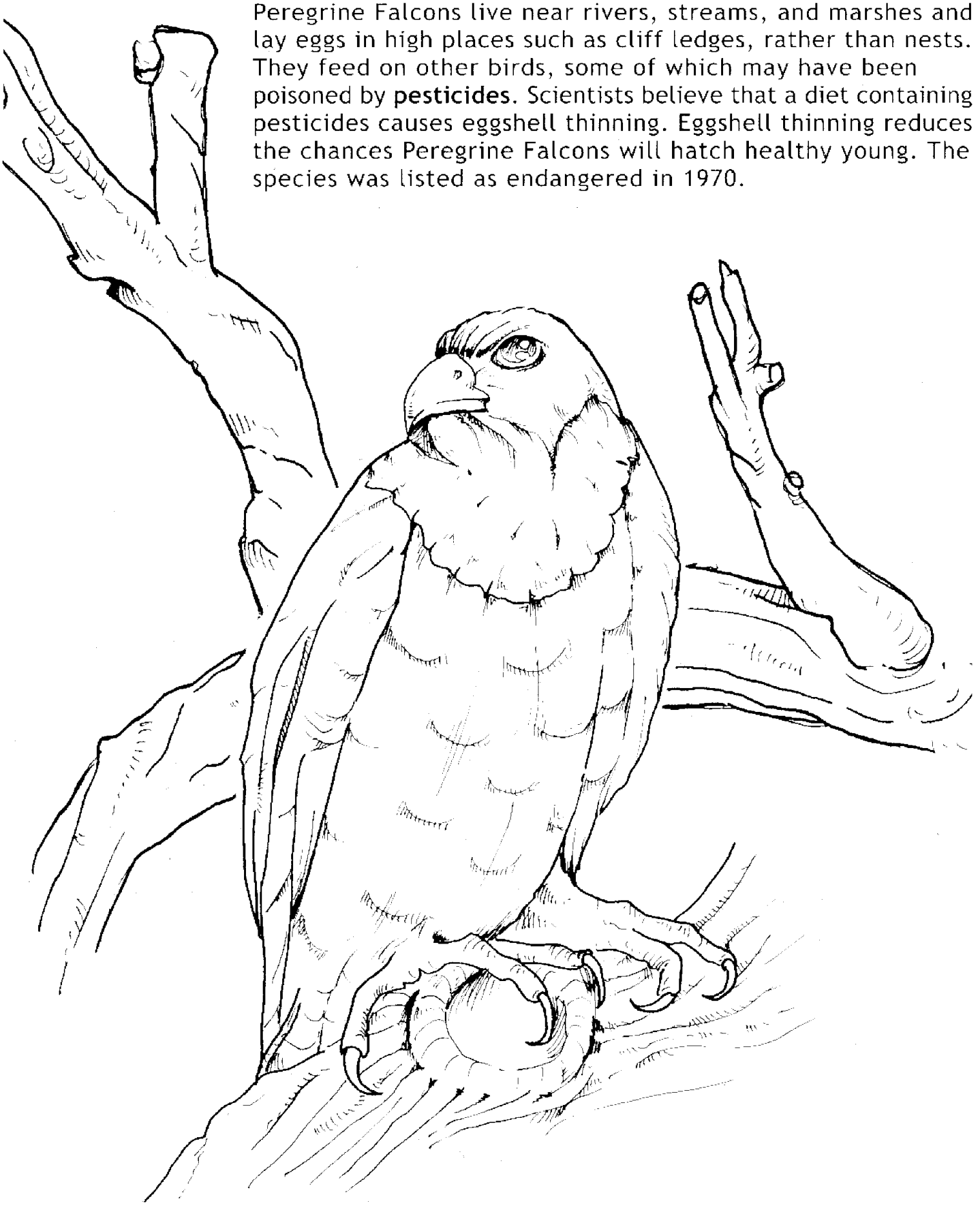
We have learned, over the years, that when entire species of plants and animals become threatened or endangered, our own activities may be at fault. Most often what we have done is harm or even destroy the environment (the "habitat") that enables the species to grow, stay healthy, and reproduce.

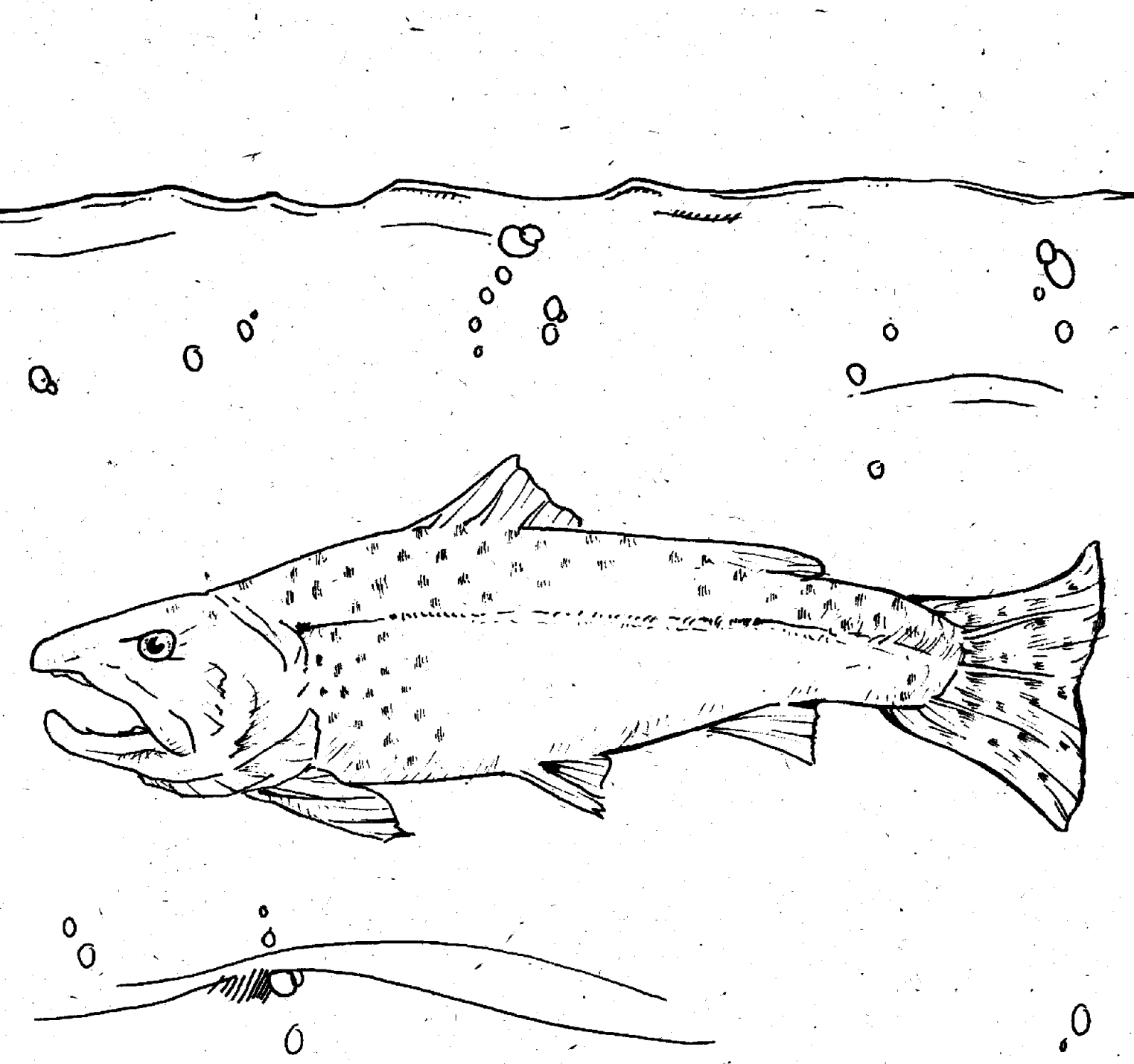
This means we know where and how we can make a difference. Special efforts have successfully prevented 99 percent of the species officially identified as threatened or endangered from extinction. And when we protect endangered species, ensuring a healthy environment for wildlife, we are contributing to a healthy environment for people.

This coloring book lists some of the threatened species that depend on the lower Columbia River **estuary** and its surrounding environment. As you color the pictures in this book, think about actions you might take to save a part of nature for your children and your children's children.

American peregrine falcon

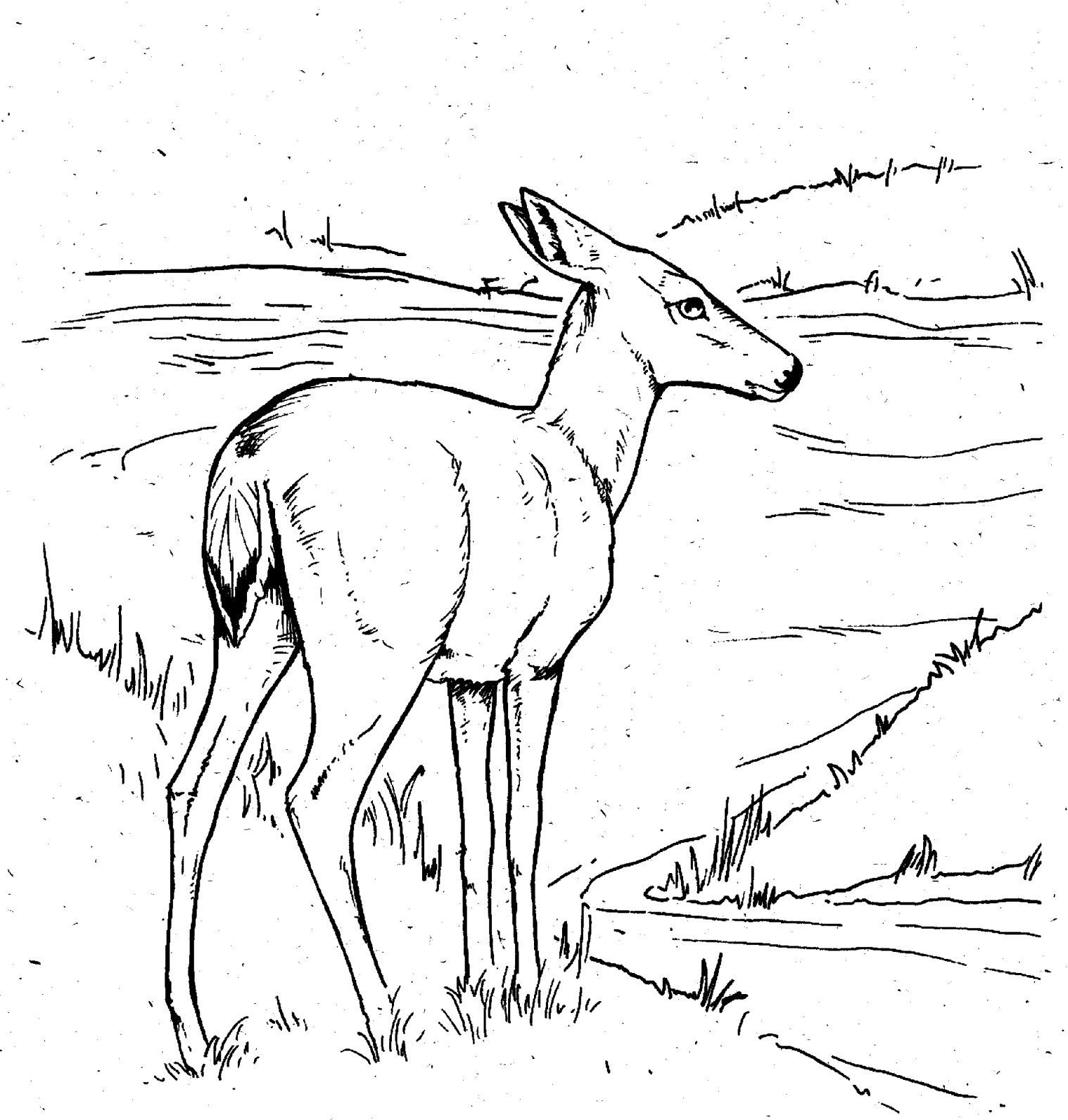
Peregrine Falcons live near rivers, streams, and marshes and lay eggs in high places such as cliff ledges, rather than nests. They feed on other birds, some of which may have been poisoned by **pesticides**. Scientists believe that a diet containing pesticides causes eggshell thinning. Eggshell thinning reduces the chances Peregrine Falcons will hatch healthy young. The species was listed as endangered in 1970.





LOWER COLUMBIA RIVER STEELHEAD

Lower Columbia River Steelhead grow in fresh water for one to four years before migrating down the river in spring, through the estuary, to the ocean. Steelhead stay in the estuary for 30-60 days, adjusting to saltwater, and eating insects, small fish, and **crustaceans**. After one to three years in the ocean they return to the estuary and move upriver to spawn in the Columbia and its **tributaries**. Steelhead have lost habitat due to forestry, farming, and development activities. They are also threatened by over fishing, competition with hatchery fish, and the effects of hydroelectric dams. Lower Columbia River Steelhead were listed as threatened in 1998. Two other runs of steelhead that use the lower Columbia River are also in danger. Snake River Steelhead were listed as threatened in 1997, and Upper Columbia River Steelhead were listed as endangered in 1997.

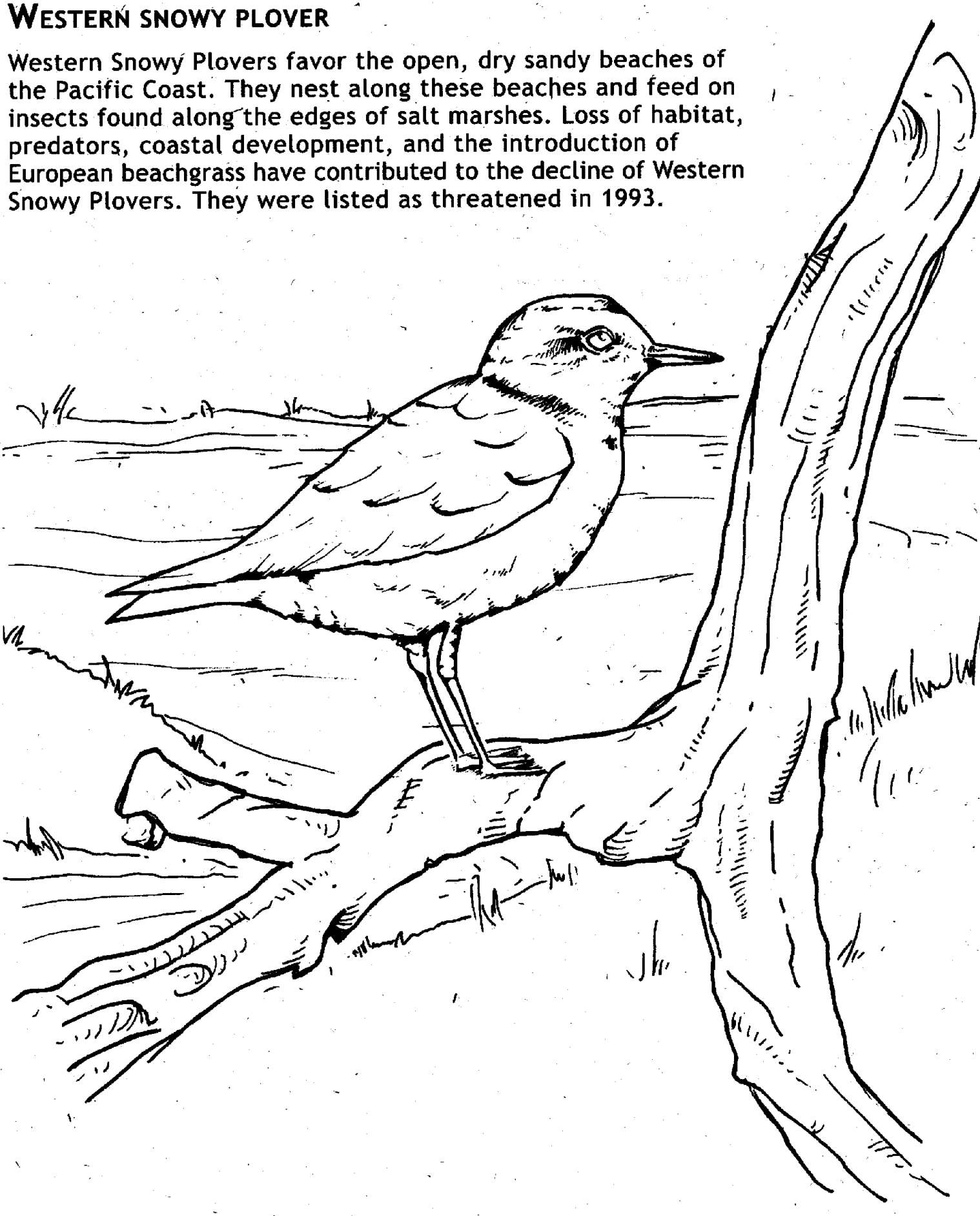


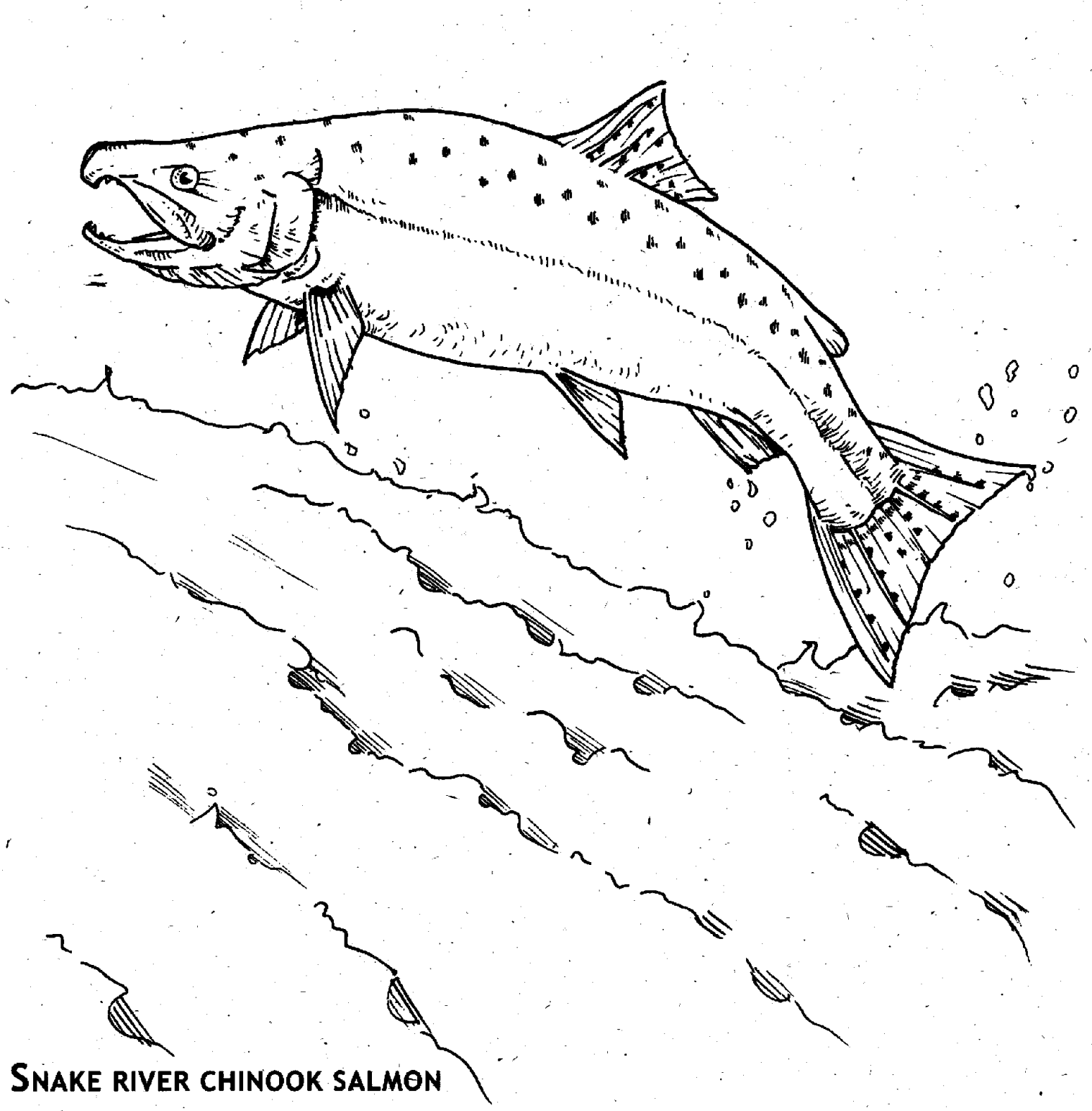
COLUMBIA WHITE-TAILED DEER

Columbia White-Tailed Deer favor wet meadows and shrubby areas near rivers and streams. The deer are found year-round on some islands and the mainland in the area around Cathlamet, Washington. They graze mostly at night on young grasses, green plants, and the tender tips of woody shrubs. Columbia White-Tailed Deer populations have declined due to a loss of wetland habitat, disease, predators, and hunting. They were listed as endangered in 1967.

WESTERN SNOWY PLOVER

Western Snowy Plovers favor the open, dry sandy beaches of the Pacific Coast. They nest along these beaches and feed on insects found along the edges of salt marshes. Loss of habitat, predators, coastal development, and the introduction of European beachgrass have contributed to the decline of Western Snowy Plovers. They were listed as threatened in 1993.





SNAKE RIVER CHINOOK SALMON

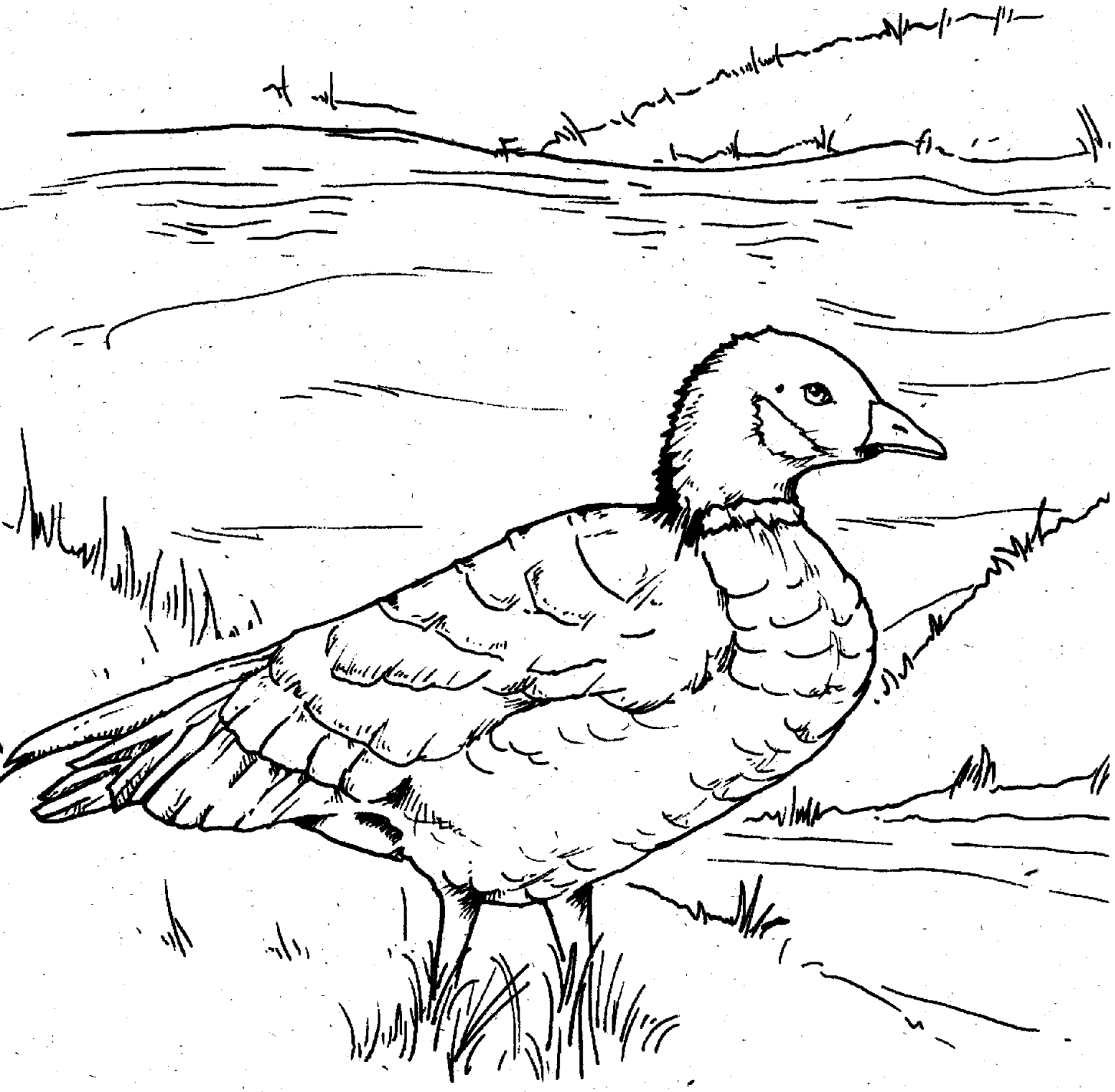
Snake River Chinook Salmon spend up to several months feeding, adjusting to saltwater, and building strength in the lower Columbia River estuary before moving into the Pacific Ocean. In the estuary, young chinook salmon eat insects, small crustaceans, and fish. In the spring or fall, after three to five years in the ocean, Snake River Chinook Salmon swim upstream through the estuary to spawn in the Snake River and its tributaries. Snake River Chinook Salmon have lost habitat due to forestry, farming, and development. They are also threatened by over fishing, competition with hatchery fish, and the effects of hydroelectric dams. Two separate runs of Snake River Chinook Salmon have been listed. Both Snake River Fall Chinook and Snake River Spring/Summer Chinook were listed as threatened in 1992.

BALD EAGLE

Bald Eagles are found in forested areas along rivers and feed near wetlands and marshes. They eat mostly fish, but also catch and eat small mammals, birds, snakes, and **carrion**. Many of the eagles' prey have been contaminated by **pesticides**, **PCB's** and **dioxins**. Scientists believe this causes eggshell thinning which reduces their chances of hatching healthy young. Bald Eagles were listed as endangered in 1967, but were reclassified as threatened in 1994.

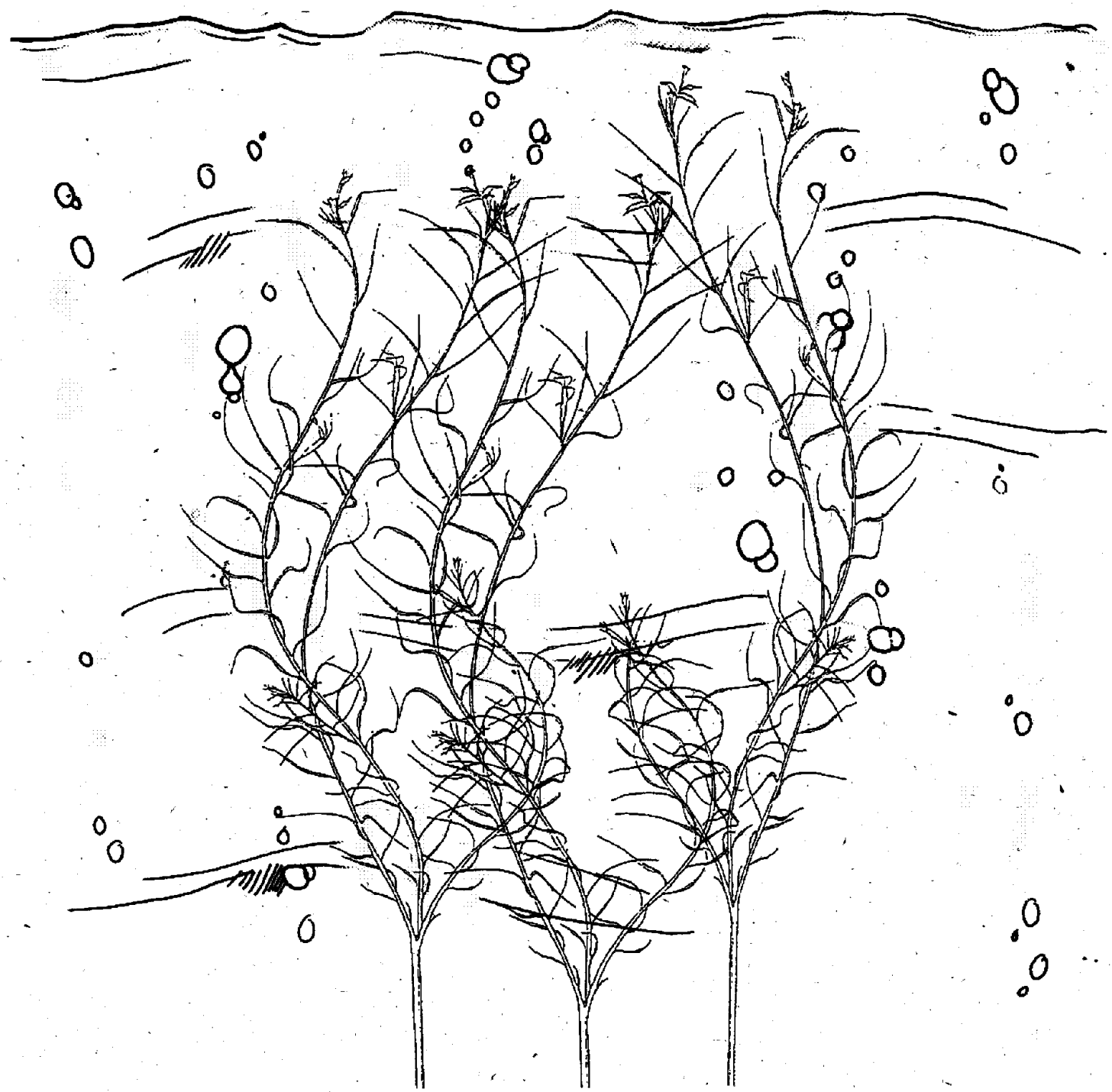
ALEUTIAN CANADA GOOSE

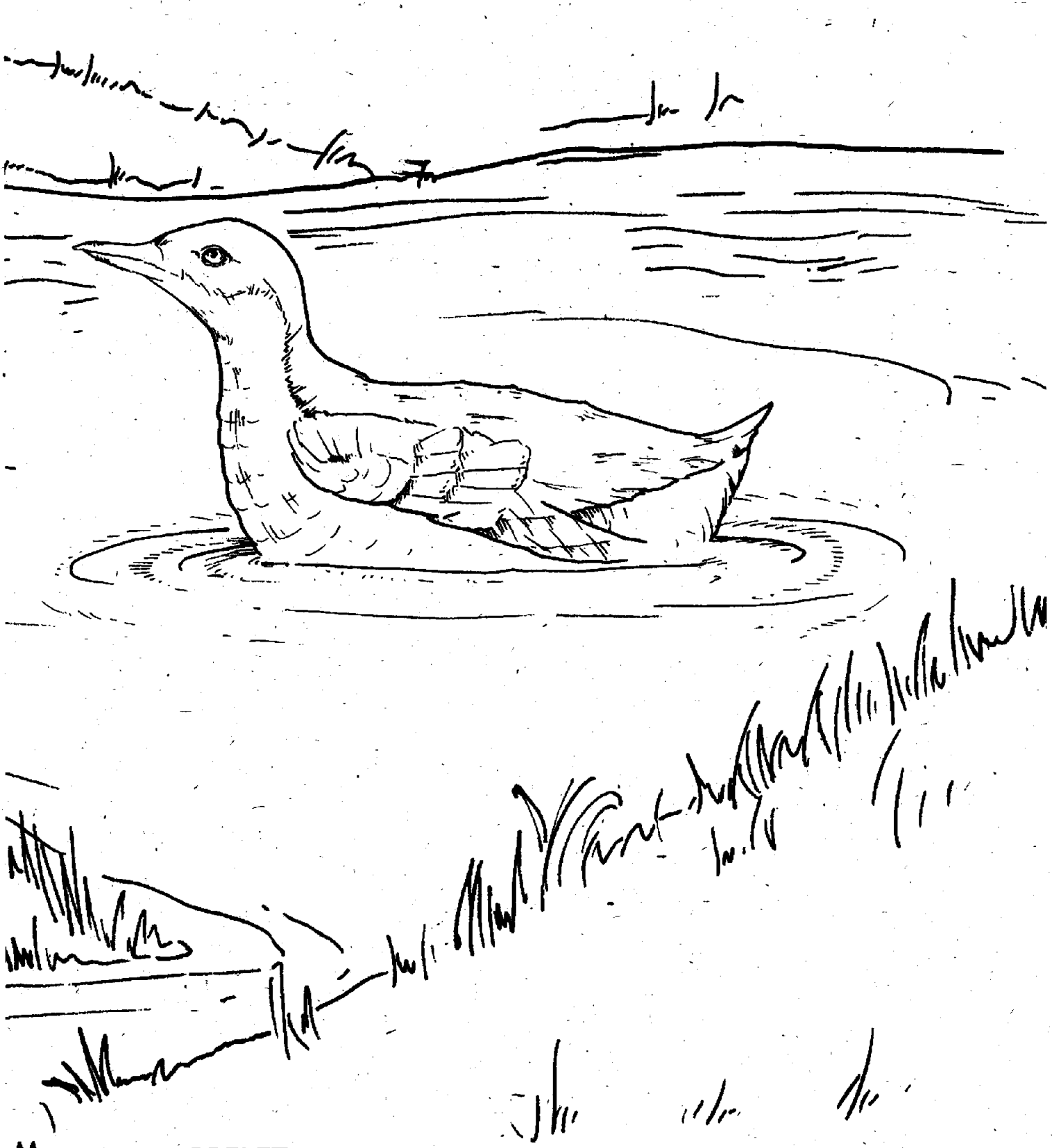
Aleutian Canada Geese are seasonal visitors to the Columbia River estuary. They spend winters in the Pacific Northwest and summers in the Canadian Aleutian Islands. The geese feed on roots, seeds, grains, berries, and fresh sprouting plants, such as field grasses, marsh grasses, clover, and cattails. The decline of Aleutian Canada Geese can be attributed to **predation** at their feeding grounds, and to eating the lead in hunters' shot. They were listed as endangered in 1967, but reclassified as threatened in 1990.



WATER HOWELLIA

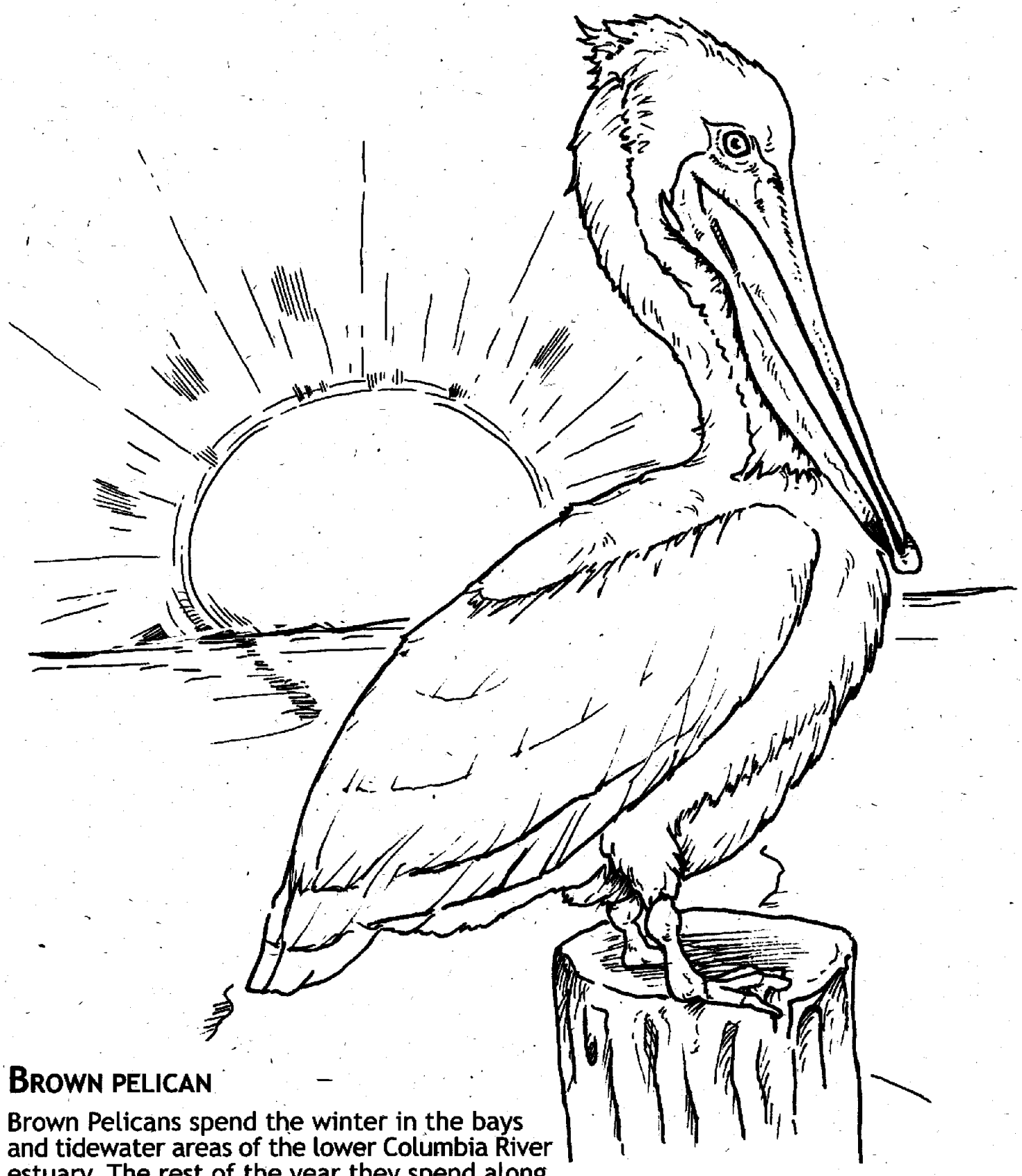
The Water Howellia is an **annual** plant that grows completely underwater. It grows mostly in ponds; however, it also grows near the mouth of the Willamette River. It has long narrow leaves and trumpet-shaped, light purple flowers. The number of Water Howellia plants in the lower Columbia River estuary has decreased because of shrinking wetland habitat. Road construction, house construction, and other development can drain and destroy the wetlands and ponds that are the Water Howellia's main habitat. The Water Howellia was listed as a threatened plant in 1994.





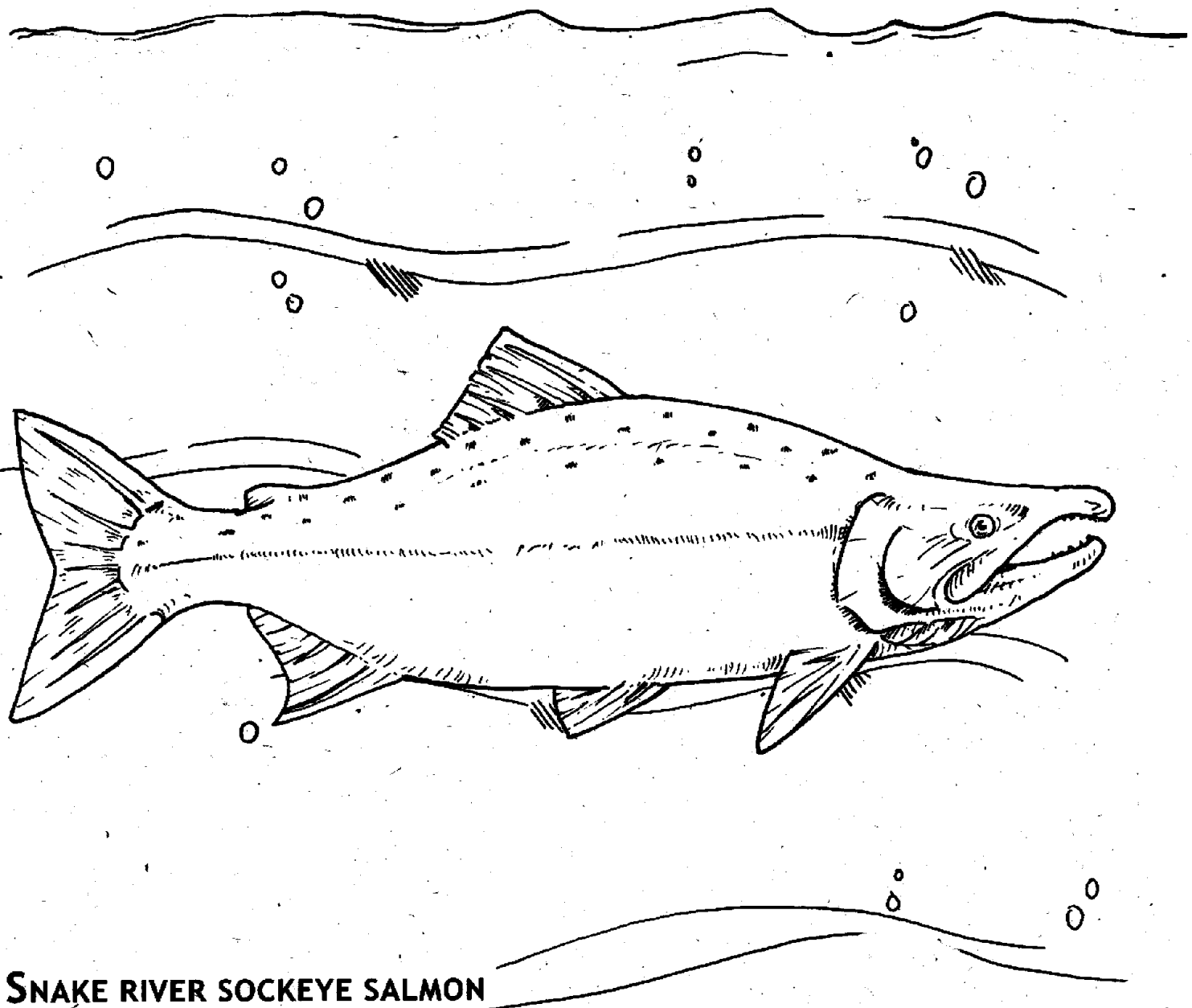
MARBLED MURRELET

Marbled Murrelets may be present in the lower Columbia River estuary area. They nest as far as 50 miles inland in old growth forests along the coast, but spend most of their time swimming on or flying above the Pacific Ocean. They feed on small schooling fish, **mollusks**, and crustaceans. Loss of old growth habitat, **gill net** fishing, and oil pollution all have contributed to the Marbled Murrelet's decline. They were listed as a threatened species in 1992.



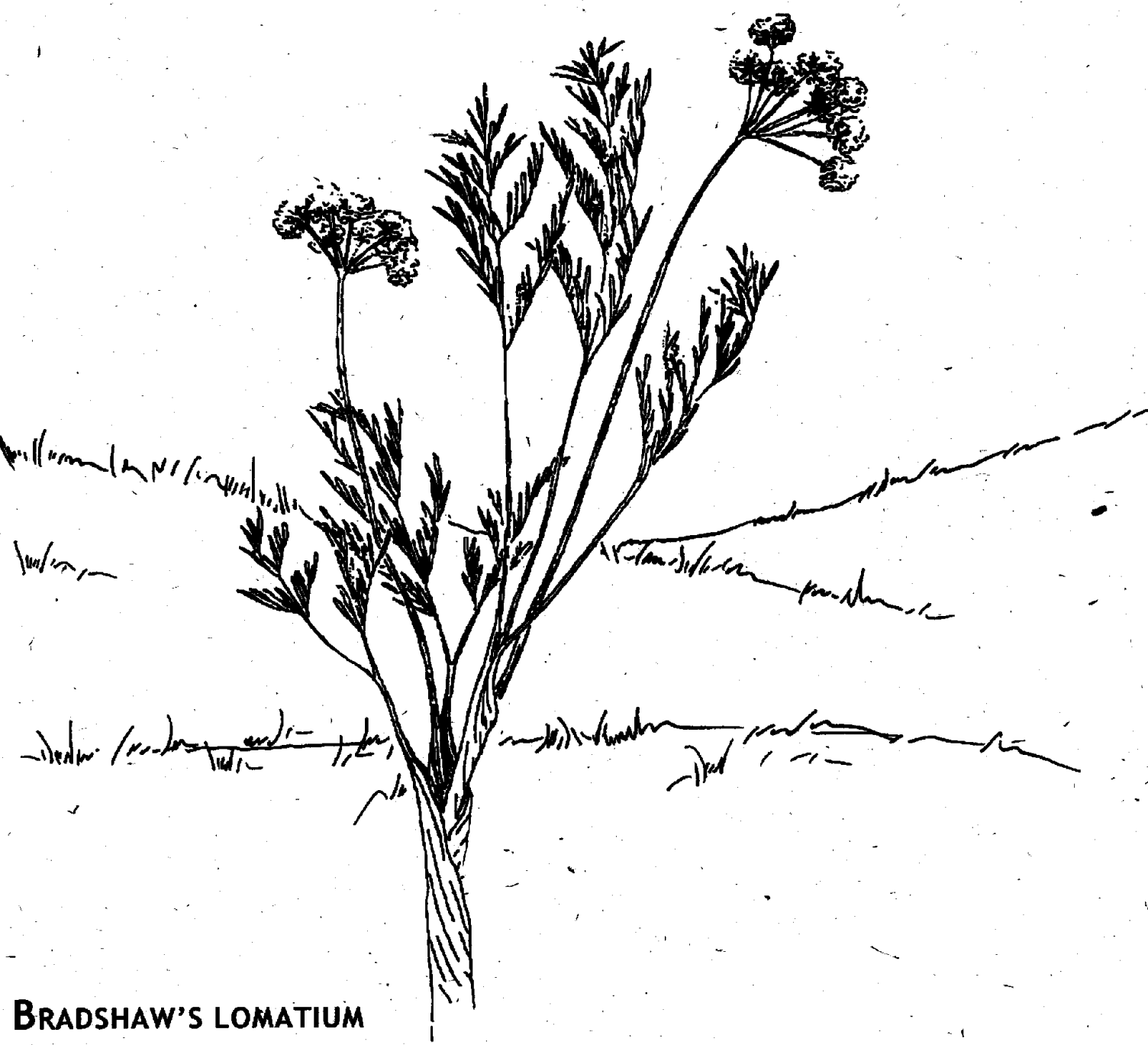
BROWN PELICAN

Brown Pelicans spend the winter in the bays and tidewater areas of the lower Columbia River estuary. The rest of the year they spend along the coasts of Mexico and South America where they breed on protected rocky shorelines. Brown Pelicans feed on marine fish, but pesticides, PCBs, and other **toxics** have contaminated much of their prey. Scientists believe eating contaminated fish causes eggshell thinning, which reduces Brown Pelicans' chances of hatching healthy young. Brown Pelicans were listed as endangered in 1970.



SNAKE RIVER SOCKEYE SALMON

Snake River Sockeye Salmon move through the Columbia River estuary as young **smolts** on their way to the ocean. After one to four years in the Pacific Ocean they pass through the estuary again on their way upstream to spawn in reservoirs and lakes connected to the Snake River. Sockeye feed primarily on ocean **plankton**. They have lost habitat due to forestry, farming, and development activities. Sockeye are also threatened by over fishing, competition with hatchery fish, and the effects of hydroelectric dams. Snake River Sockeye Salmon were listed as endangered in 1992.



BRADSHAW'S LOMATIUM

Bradshaw's Lomatium is a **perennial** plant that grows in grassy, wet low areas such as wetland prairies. It has small pale yellow flowers that grow on long stems and bloom in April and May. Its leaves resemble those of a carrot top. The loss of native grasslands due to land development for farming and housing has greatly contributed to this plant's decline. Bradshaw's Lomatium was listed as an endangered plant in 1988.

NORTHERN SPOTTED OWL

Northern Spotted Owls are sometimes present in the lower Columbia River estuary area. They live in old growth Douglas-fir forests and lay their eggs in the tops of large old broken-topped trees or hollowed out trunks. Northern Spotted Owls hunt at night for mammals such as flying squirrels. They also eat birds, bats and insects. When old growth forests are logged, the very old and very large trees the Northern Spotted Owl depends on are destroyed. This loss of prime habitat is the main reason for their decline. Northern Spotted Owls were listed as threatened in 1990.

GLOSSARY

annual: a plant that completes its life cycle from seedling to mature seed-bearing plant during a single growing season and then dies.

carrion: the bodies of dead animals, usually found in nature in the process of decay; not "fresh" meat.

crustacean: an animal that has a hard outer shell and usually lives in water. Shrimps, crabs, and crayfish are crustaceans.

dioxin: a highly toxic chemical contaminant.

estuary: the area of a coastal river where freshwater and saltwater meet and where the tidal influence of the ocean is present.

gill net: a curtain like fishing net, hanging vertically in the water, with mesh sized to catch fish by the gills when they attempt to swim through the mesh netting.

habitat: the place in which the food, water, shelter, and space requirements of a specific animal or plant are met; the place where an animal or plant is naturally found.

mollusk: one of a large group of animals such as oysters, clams, and snails, that have a soft body that is usually protected by a hard shell.

perennial: a plant that lives for several years and usually produces seeds each year.

pesticides: any poison or chemical used to kill undesirable creatures of any sort, such as insects or weeds.

PCB's: (polychlorinated biphenyls): organic compounds that do not break down chemically in the environment.

plankton: the tiny plant and animal life found floating in a body of water. Plankton is used as food by fish.

predation: a meat eating animal (predator) obtaining food by killing and eating other animals (prey).

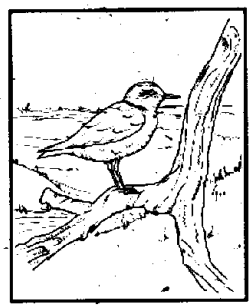
smolt: a small young salmon or steelhead when it first leaves fresh water and migrates to the ocean.

species: a population of individuals that are more or less alike and that are able to breed and produce healthy offspring under natural conditions.

toxic: poisonous or otherwise directly harmful to life.

tributary: a creek, stream, or river that flows into a larger one.

Draw a line from the name of each endangered or threatened species to its correct picture



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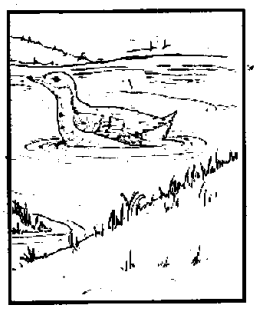
AMERICAN PEREGRINE FALCON



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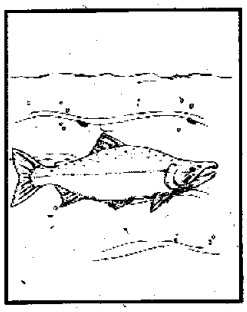
LOWER COLUMBIA RIVER STEELHEAD

COLUMBIA WHITE-TAILED DEER

BRADSHAW'S LOMATIUM



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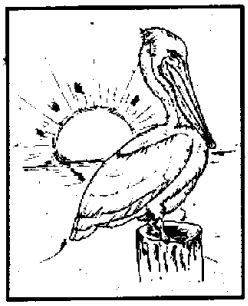
WESTERN SNOWY PLOVER

SNAKE RIVER SOCKEYE SALMON

BROWN PELICAN



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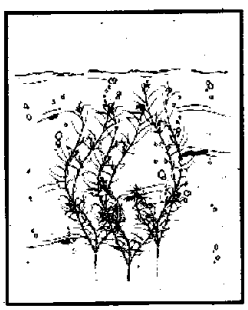
MARBLED MURRELET

WATER HOWELLIA

ALEUTIAN CANADA GOOSE



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NORTHERN SPOTTED OWL

BALD EAGLE

SNAKE RIVER CHINOOK SALMON

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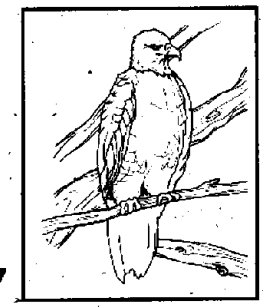

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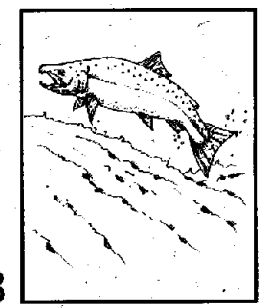

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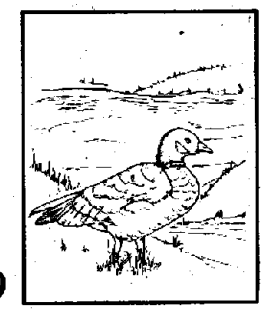

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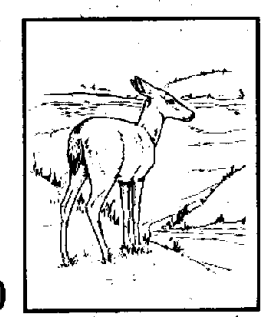

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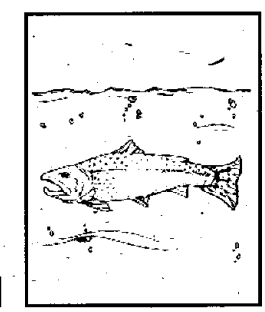

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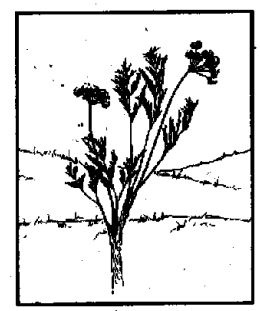

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Answers

1. WESTERN SNOWY PLOVER
2. MARBLED MURRELET
3. SNAKE RIVER SOCKEYE SALMON
4. BROWN PELICAN
5. WATER HOWELLIA
6. AMERICAN PEREGRINE FALCON
7. BALD EAGLE
8. SNAKE RIVER CHINOOK SALMON
9. ALEUTIAN CANADA GOOSE
10. COLUMBIA WHITE-TAILED DEER
11. LOWER COLUMBIA RIVER STEELHEAD
12. BRADSHAW'S LOMATIUM
13. NORTHERN SPOTTED OWL

The Lower Columbia River Estuary Program

The National Estuary Program was established in 1987 in amendments to the Federal Clean Water Act. The program is designed to protect estuaries of national significance that are threatened by degradation caused by human activity. It provides a framework and resources for local communities to come together to define problems and identify ways to address them.

The lower Columbia River estuary became part of the national program in 1995.

The mission of the **Lower Columbia River Estuary Program** is to preserve and enhance the water quality of the estuary and to support its biological and human communities.

The Lower Columbia River Estuary Program is working to improve the ecological integrity of the estuary. The program identifies problems, evaluates current conditions, and initiates corrective actions.

For more information contact us at:
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website: www.lcrep.org

LOWER COLUMBIA RIVER ESTUARY PROGRAM

WORKING FOR SOLUTIONS