



Photo by Mike Pogue

BALD EAGLE



Photo by Brian Houser

GREAT BLUE HERON



U.S. Fish & Wildlife Service

SPOTTED SANDPIPER



Photo by Mike Pogue

SNOWY EGRET



U.S. Fish & Wildlife Service

BELTED KINGFISHER



U.S. Fish & Wildlife Service

CANVASBACK

BIRDS of the HUDSON RIVER ESTUARY - SHEET ONE

GREAT BLUE HERON

What is it? *Ardea herodias* is a bird

How big is it? 5 ft. tall; 46 in. long

What does it eat? mainly fish; also amphibians, small birds, small mammals

Where does it live? along ponds, lakes, streams, rivers, marshes, swamps; salt & fresh water; needs large trees for nest

What is its life cycle? hatches from egg; baby's body has the same parts as an adult's body

BALD EAGLE

What is it? *Haliaeetus leucocephalus* is a bird

How big is it? 28-37 in. long; wingspread 6-7 ft.

What does it eat? mainly fish; also ducks, geese, other birds & mammals

Where does it live? along large bodies of water; salt & fresh water; needs large trees for nest

What is its life cycle? hatches from egg; baby's body has the same parts as an adult's body

SNOWY EGRET

What is it? *Egretta thula* is a bird

How big is it? 24 in. long

What does it eat? mainly small fish; also shrimp, small crabs, worms

Where does it live? along streams, rivers, ponds, lakes, marshes, swamps; salt & fresh water; nests in small trees, shrubs, vines

What is its life cycle? hatches from egg; baby's body has the same parts as an adult's body

SPOTTED SANDPIPER

What is it? *Actitis macularia* is a bird

How big is it? 7-8 inches long

What does it eat? small crustaceans, insects, worms

Where does it live? along ponds, lakes, streams, rivers, marshes, swamps; salt & fresh water; nests on ground near or under plants

What is its life cycle? hatches from egg; baby's body has the same parts as an adult's body

CANVASBACK

What is it? *Aythya valisneria* is a bird

How big is it? 20 in. long

What does it eat? omnivore; water plants, insects & small clams, snails, & crustaceans

Where does it live? on rivers, lakes, marshes, bays; salt & fresh water; nest built on water among plants

What is its life cycle? hatches from egg; baby's body has the same parts as an adult's body

BELTED KINGFISHER

What is it? *Ceryle alcyon* is a bird

How big is it? 12 in. long

What does it eat? mainly small fish

Where does it live? along streams, rivers, ponds, lakes, marshes, swamps; salt & fresh water; nests in burrows in sand banks

What is its life cycle? hatches from egg; baby's body has the same parts as an adult's body



U.S. Fish & Wildlife Service

MALLARD



Photo by Mike Pogue

DOUBLE-CRESTED CORMORANT



RING-BILLED GULL



Photo by Mike Pogue

CANADA GOOSE



U.S. Fish & Wildlife Service

RED-WINGED BLACKBIRD



U.S. Fish & Wildlife Service

MARSH WREN

DOUBLE-CRESTED CORMORANT

What is it? *Phalacrocorax auritus* is a bird

How big is it? 27-35 in. long

What does it eat? fish

Where does it live? on rivers, lakes, bays, ocean; salt & fresh water; nests on ground, in shrubs & small trees, & on light towers

What is its life cycle? hatches from egg; baby's body has the same parts as an adult's body

MALLARD

What is it? *Anas platyrhynchos* is a bird

How big is it? 20-25 in. long

What does it eat? omnivore; water plants, corn & other grains, acorns, insects, snails, worms, & crustaceans

Where does it live? on rivers, lakes, ponds, marshes; fresh & brackish water; nests on ground

What is its life cycle? hatches from egg; baby's body has the same parts as an adult's body

CANADA GOOSE

What is it? *Branta canadensis* is a bird

How big is it? 30-40 in. long

What does it eat? water plants, grasses & similar land plants, corn & other grains

Where does it live? on rivers, lakes, ponds, marshes, bays; salt & fresh water; also feeds in fields; nests on ground

What is its life cycle? hatches from egg; baby's body has the same parts as an adult's body

RING-BILLED GULL

What is it? *Larus delawarensis* is a bird

How big is it? 18-20 in. long

What does it eat? fish, insects, rodents, earthworms, some grain

Where does it live? on rivers, lakes, marshes, bays, ocean; salt & fresh water; nests on ground

What is its life cycle? hatches from egg; baby's body has the same parts as an adult's body

MARSH WREN

What is it? *Cistothorus palustris* is a bird

How big is it? 5 in. long

What does it eat? insects, spiders

Where does it live? in marshes in fresh & brackish water, especially in cattail; builds nests in marsh plants

What is its life cycle? hatches from egg; baby's body has the same parts as an adult's body

RED-WINGED BLACKBIRD

What is it? *Agelaius phoeniceus* is a bird

How big is it? 8 in. long

What does it eat? omnivore; seeds, grain, insects

Where does it live? along streams, rivers, lakes, ponds, marshes; brackish & fresh water; nests in marsh plants, trees, shrubs

What is its life cycle? hatches from egg; baby's body has the same parts as an adult's body



U.S. Fish & Wildlife Service

CRAYFISH



BLUE CRAB



National Oceanic & Atmospheric Administration

SHORE SHRIMP



WHITE-FINGERED MUD CRAB



Canadian Register of Marine Species

SAND SHRIMP



Photo by Eric Lind

SCUD (AMPHIPOD)

LARGE CRUSTACEANS of the HUDSON RIVER ESTUARY

BLUE CRAB

What is it? *Callinectes sapidus* is a crustacean

How big is it? shell up to 7 in. across

What does it eat? fish, plants, insect larvae, worms, smaller crustaceans, mollusks, snails, & dead organisms

Where does it live? rivers, marshes, estuaries, bays; fresh & salt water

What is its life cycle? hatches from egg in salt water as planktonic *zoea* larva; eventually molts into *megalops* larva, then into a tiny adult crab

CRAYFISH

What is it? a crustacean; many species in the infra-order Astacidea

How big is it? about 2-4 in. long

What does it eat? aquatic plants, algae, insect larvae, worms, tadpoles, tiny fish, & dead organisms

Where does it live? streams, rivers, ponds, lakes, marshes; fresh water

What is its life cycle? hatches from egg; grows by molting; looks like adult after two molts

WHITE-FINGERED MUD CRAB

What is it? *Rhithropanopeus harrisii* is a crustacean

How big is it? shell up to $\frac{3}{4}$ in. across

What does it eat? detritus, algae, smaller crustaceans, worms, & bivalves

Where does it live? rivers, marshes, estuaries; bays; fresh & brackish water

What is its life cycle? hatches from egg as planktonic *zoea* larva; eventually molts into *megalops* larva, then into a tiny adult crab

SHORE SHRIMP

What is it? a crustacean; several species in genus *Palaemonetes*

How big is it? up to 2 in. long

What does it eat? detritus, algae, smaller crustaceans, worms

Where does it live? rivers, marshes, estuaries, bays; brackish & salt water

What is its life cycle? hatches from egg; goes through several planktonic larval stages before settling to the bottom as a tiny adult shrimp

SCUD (AMPHIPOD)

What is it? a crustacean; many species in the order Amphipoda, suborder Gammaridea

How big is it? less than $\frac{1}{2}$ in. long

What does it eat? detritus, algae, smaller crustaceans, worms

Where does it live? streams, rivers, ponds, lakes, marshes, estuaries, bays, ocean; fresh & salt water

What is its life cycle? hatches from egg; hatchling looks like tiny adult

SAND SHRIMP

What is it? *Crangon septemspinosa* is a crustacean

How big is it? up to $2\frac{3}{4}$ in. long

What does it eat? detritus, algae, worms, smaller crustaceans, fish larvae

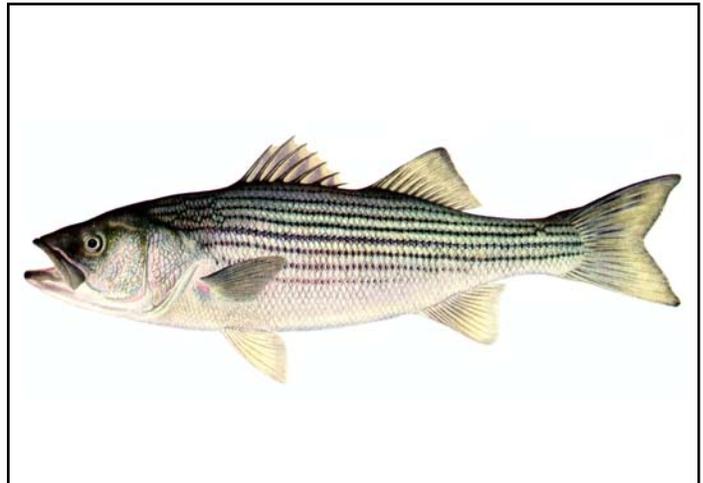
Where does it live? rivers, marshes, estuaries, bays; brackish & salt water

What is its life cycle? hatches from egg; goes through several planktonic larval stages before settling to the bottom as a tiny adult shrimp

LARGE CRUSTACEANS of the HUDSON RIVER ESTUARY



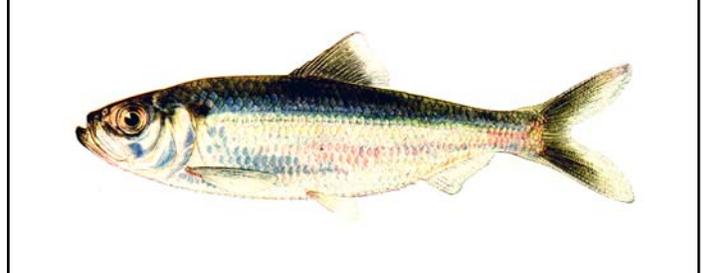
ATLANTIC STURGEON



STRIPED BASS



AMERICAN SHAD



ALEWIFE (HERRING)



AMERICAN EEL



WHITE CATFISH

STRIPED BASS

What is it? *Morone saxatilis* is a fish
How big is it? 30-40 in. long; up to 55 lbs.
What does it eat? fish, crabs, shrimp, worms, squid
Where does it live? rivers, estuaries, bays, ocean
What is its life cycle? hatches from egg in fresh water; most migrate to sea after a year in the estuary; return to fresh water to spawn when 4-7 years old

ATLANTIC STURGEON

What is it? *Acipenser oxyrinchus* is a fish
How big is it? 5-8 ft. long; 60-200 lbs.
What does it eat? worms, crustaceans, insect larvae, small bottom fish
Where does it live? in deep water of large rivers, estuaries, bays, & ocean
What is its life cycle? hatches from egg in fresh water; migrates to sea at age 2-6 years; returns to fresh water to spawn for the first time as a teenager; may live more than 60 years

ALEWIFE (HERRING)

What is it? *Alosa pseudoharengus* is a fish
How big is it? 9-12 in. long
What does it eat? zooplankton (tiny crustaceans, insects)
Where does it live? in streams, rivers, estuaries, & ocean
What is its life cycle? hatches from egg in fresh water; migrates to sea by age 1 year; returns to fresh water to spawn when 3-5 years old

AMERICAN SHAD

What is it? *Alosa sapidissima* is a fish
How big is it? 18-24 in. long up to 10 lbs.
What does it eat? zooplankton (very small crustaceans, insect larvae, fish)
Where does it live? in large rivers, estuaries, & ocean
What is its life cycle? hatches from egg in fresh water; migrates to sea by age 1 year; returns to fresh water to spawn for the first time when 4-7 years old

WHITE CATFISH

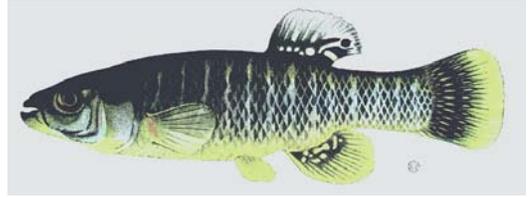
What is it? *Ameiurus catus* is a fish
How big is it? 12-16 in. long
What does it eat? small fish, fish eggs, insect larvae, crustaceans
Where does it live? in large rivers & estuaries, brackish & fresh water
What is its life cycle? hatches from egg; grows up near where it hatched

AMERICAN EEL

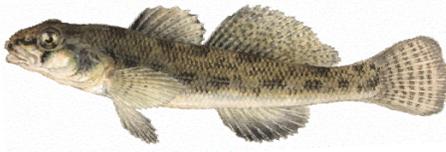
What is it? *Anguilla rostrata* is a fish
How big is it? 24-40 in. long
What does it eat? crustaceans, fish, insects, dead animals
Where does it live? in streams, rivers, lakes, ponds, marshes, estuaries, & ocean
What is its life cycle? hatches from egg in ocean; larva drifts to coast, becomes glass eel; most enter fresh water, become elvers, then "yellow" eels; after 10-20 years, swim back to sea as "silver" eels to spawn & die



BANDED KILLIFISH



MUMMICHOG



TESSELLATED DARTER



PUMPKINSEED (SUNFISH)



SPOTTAIL SHINER



ATLANTIC SILVERSIDE

MUMMICHOG

What is it? *Fundulus heteroclitus* is a fish

How big is it? up to 5 in. long

What does it eat? omnivore; eats small crustaceans, insects, tiny fish, fish eggs, mollusks, diatoms, fragments of plants

Where does it live? in weedy shallows of streams, rivers, & marshes; likes brackish water but also lives in fresh & salt water

What is its life cycle? hatches from egg; grows up near where it hatched

BANDED KILLIFISH

What is it? *Fundulus diaphanus* is a fish

How big is it? up to 4 in. long

What does it eat? small crustaceans, insects (adult & larvae), worms

Where does it live? in weedy shallows of streams, rivers, & marshes; fresh & brackish water

What is its life cycle? hatches from egg; grows up near where it hatched

PUMPKINSEED (SUNFISH)

What is it? *Lepomis gibbosus* is a fish

How big is it? up to 8 in. long

What does it eat? crustaceans, insects, small fish, mollusks,

Where does it live? in shallows of streams, rivers, ponds, lakes; fresh water

What is its life cycle? hatches from egg; grows up near where it hatched

TESSELLATED DARTER

What is it? *Etheostoma olmstedi* is a fish

How big is it? up to 3½ in. long

What does it eat? small crustaceans, insect larvae

Where does it live? in streams, rivers, ponds, lakes; fresh water

What is its life cycle? hatches from egg; grows up near where it hatched

ATLANTIC SILVERSIDE

What is it? *Menidia menidia* is fish

How big is it? up to 5 in. long

What does it eat? omnivore; eats small crustaceans, worms, fish eggs, algae

Where does it live? in shallow water of estuaries, bays, & ocean; brackish & salt water

What is its life cycle? hatches from egg; grows up near where it hatched

SPOTTAIL SHINER

What is it? *Notropis hudsonius* is a fish

How big is it? up to 5 in. long

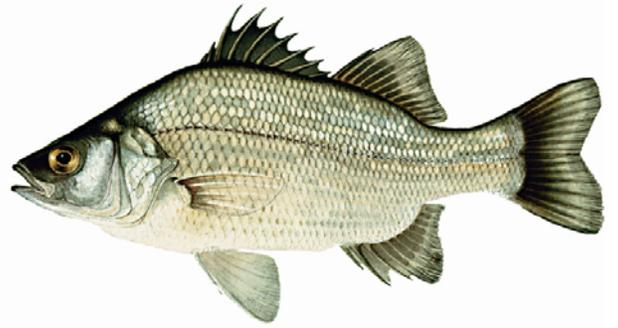
What does it eat? omnivore; eats small crustaceans, insect larvae, fish eggs, algae

Where does it live? in shallows of streams, rivers, ponds, lakes; fresh water

What is its life cycle? hatches from egg; grows up near where it hatched



LARGEMOUTH BASS



WHITE PERCH



COMMON CARP



HOGCHOKER



BLUEFISH



NORTHERN PIPEFISH

WHITE PERCH

What is it? *Morone americana* is a fish

How big is it? up to 12 in. long

What does it eat? crustaceans, insects, fish & fish eggs

Where does it live? in rivers, lakes, bays, & estuaries; fresh & brackish water

What is its life cycle? hatches from egg, often in tributary stream; moves downstream to larger body of water as it grows; may return to tributary to spawn

LARGEMOUTH BASS

What is it? *Micropterus salmoides* is a fish

How big is it? up to 24 in. long, 10 lbs.

What does it eat? crustaceans, insects, fish, frogs

Where does it live? in streams, rivers, ponds, & lakes; fresh water

What is its life cycle? hatches from egg; grows up near where it hatched

HOGCHOKER

What is it? *Trinectes maculatus* is a fish

How big is it? up to 5½ in. long

What does it eat? small crustaceans, insect larvae, worms

Where does it live? in rivers, bays, estuaries, & ocean; fresh & salt water

What is its life cycle? hatches from egg; grows up near where it hatched

COMMON CARP

What is it? *Cyprinus carpio* is a fish

How big is it? up to 36 in. long, 40 lbs

What does it eat? omnivorous; insects, crustaceans, snails, worms, small fish, fish eggs, algae, plants

Where does it live? in rivers, ponds, lakes; fresh water

What is its life cycle? hatches from egg; grows up near where it hatched

NORTHERN PIPEFISH

What is it? *Syngnathus fuscus* is a fish

How big is it? up to 8 in. long

What does it eat? zooplankton, mainly tiny crustaceans

Where does it live? in rivers, bays, marshes, estuaries, & ocean; brackish & salt water

What is its life cycle? hatches from egg that female places in pouch on stomach of male; grows up near where it hatched

BLUEFISH

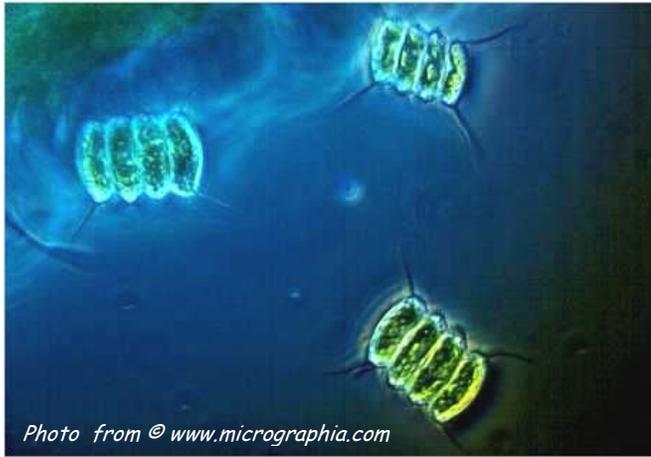
What is it? *Pomatomus saltatrix* is a fish

How big is it? young "snapper" bluefish up to 10 in. long are common in estuaries; adults up to 36 in. long, 20 lbs

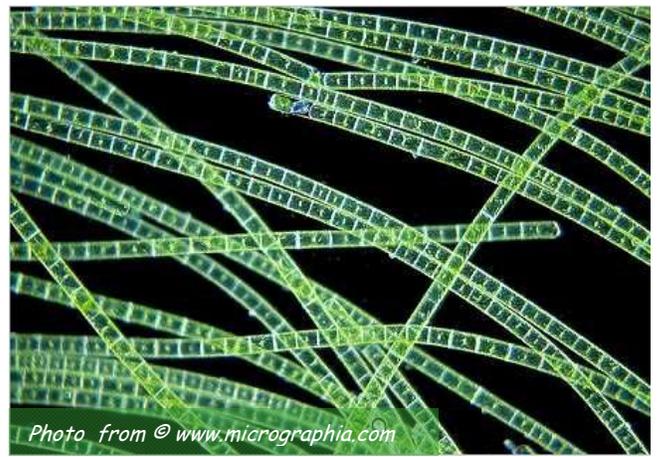
What does it eat? fish, crustaceans, squid

Where does it live? in rivers, bays, estuaries, & ocean; brackish & salt water

What is its life cycle? hatches from egg in ocean; young migrate into estuaries during first year, then return to sea



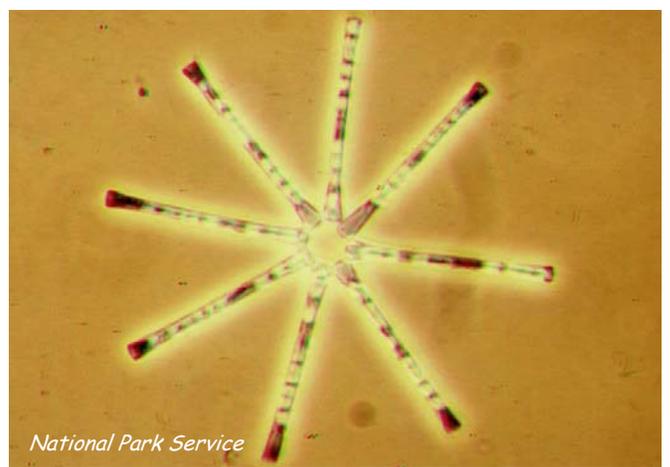
SCENEDESMUS



SPIROGYRA



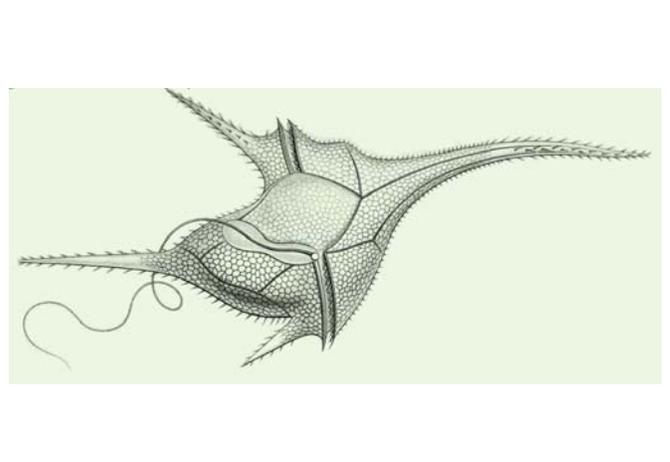
PARALIA



ASTERIONELLA



ANABAENA



CERATIUM

PHYTOPLANKTON of the HUDSON RIVER ESTUARY

SPIROGYRA

What is it? one of many species of green algae in the genus *Spirogyra*

How big is it? microscopic cells join end-to-end to form strings

What eats it? eaten by zooplankton, tiny invertebrates, some small fish

Where does it live? a variety of species live in fresh water; rivers, ponds, lakes, & marshes

What is its life cycle? reproduces by cell division

SCENEDESMUS

What is it? one of many species of green algae in the genus *Scenedesmus*

How big is it? microscopic cells (about .02 mm across) form groups in multiples of two

What eats it? eaten by zooplankton, tiny invertebrates, some small fish

Where does it live? a variety of species live in fresh water; rivers, ponds, lakes, & marshes

What is its life cycle? reproduces by cell division

ASTERIONELLA

What is it? *Asterionella formosa* is a diatom (once called yellow-brown algae)

How big is it? individual cells are microscopic (.07 mm); they attach together in star-like groupings

What eats it? eaten by zooplankton, tiny invertebrates, some small fish

Where does it live? fresh & brackish water in the Hudson

What is its life cycle? reproduces by cell division

PARALIA

What is it? *Paralia sulcata* (formerly *Melosira sulcata*) is a diatom (once called yellow-brown algae)

How big is it? individual cells are microscopic (.02 mm across); they attach together end-to-end

What eats it? eaten by zooplankton, tiny invertebrates, some small fish

Where does it live? brackish & salt water

What is its life cycle? reproduces by cell division

CERATIUM

What is it? *Ceratium hirundinella* is a dinoflagellate

How big is it? microscopic cells about .05 mm long

What eats it? eaten by zooplankton, tiny invertebrates, some small fish; can photosynthesize but also consumes algae, bacteria, & other dinoflagellates

Where does it live? one of the few *Ceratium* species that lives in fresh water

What is its life cycle? reproduces by cell division

ANABAENA

What is it? one of many species of cyanobacteria (formerly called blue-green algae) in the genus *Anabaena*

How big is it? microscopic cells (about .01 mm across) join end-to-end to form strings

What eats it? eaten by zooplankton, tiny invertebrates but produces poisons that can cause illness & death in wildlife

Where does it live? mostly fresh & brackish water in the Hudson

What is its life cycle? reproduces by cell division

PHYTOPLANKTON of the HUDSON RIVER ESTUARY



WATER CELERY



WATER MILFOIL



WATER CHESTNUT



SALTWATER CORDGRASS



Photo by Heather Henkel/USGS

NARROW-LEAVED CATTAIL



COMMON REED

PLANTS of the HUDSON RIVER ESTUARY

WATER MILFOIL

What is it? *Myriophyllum spicatum* is a flowering plant

How big is it? stems up to 15 ft. long

What eats it? sometimes eaten by ducks

Where does it live? submerged in fresh water; rivers, ponds, lakes, & marshes

What is its life cycle? grows from seed, but mostly spreads as new plants grow from pieces of existing milfoil plants

WATER CELERY

What is it? *Vallisneria americana* is a flowering plant

How big is it? leaves up to 7 ft. long

What eats it? excellent duck food; also eaten by muskrats

Where does it live? submerged in fresh and brackish water; rivers, ponds, lakes, marshes, estuaries

What is its life cycle? grows from seed, also spreads as shoots & roots expand outward from existing beds

SALTWATER CORDGRASS

What is it? *Spartina alterniflora* is a flowering plant

How big is it? up to 5 ft tall

What eats it? ducks and muskrats

Where does it live? marshes in salt & brackish water, edges of estuaries; grows above water in intertidal zone

What is its life cycle? grows from seed, also spreads as shoots & roots expand outward from existing beds

WATER CHESTNUT

What is it? *Trapa natans* is a flowering plant

How big is it? floating circle of leaves up to 10 in. in diameter; underwater stems up to 8 ft. long

What eats it? insects; squirrels eat seeds

Where does it live? fresh water of rivers, ponds, & lakes

What is its life cycle? grows from nut-like seed; also spreads as floating leaves break off & drift to new locations

COMMON REED

What is it? *Phragmites australis* is a flowering plant

How big is it? up to 13 ft. tall

What eats it? insects; sometimes ducks & muskrats

Where does it live? marshes in fresh & brackish water, edges of ponds, lakes, streams, rivers, & estuaries; grows above water in intertidal zone

What is its life cycle? grows from seed, but mostly spreads as new shoots grow from spreading root system

NARROW-LEAVED CATTAIL

What is it? *Typha angustifolia* is a flowering plant

How big is it? up to 9 ft. tall

What eats it? excellent muskrat food; also eaten by ducks and insects

Where does it live? marshes in fresh & brackish water, edges of ponds, lakes, streams, rivers, & estuaries; grows above water in intertidal zone

What is its life cycle? grows from seed; also spreads as new plants grow from spreading root system

PLANTS of the HUDSON RIVER ESTUARY



MUSKRAT



HARBOR SEAL



GREEN FROG



Photo by J. Bunnell/NJ Pinelands Commission

NORTHERN WATER SNAKE



U.S. Fish & Wildlife Service

DIAMONDBACK TERRAPIN



SNAPPING TURTLE

WILDLIFE of the HUDSON RIVER ESTUARY

HARBOR SEAL

What is it? *Phoca vitulina* is a mammal

How big is it? up to 6 ft. long; 300 lbs

What does it eat? fish, squid

Where does it live? oceans, bays, estuaries; usually found in salt water, but enters fresh water in the Hudson

What is its life cycle? mother gives birth to live young, called a pup; pup's body has the same parts as an adult's

MUSKRAT

What is it? *Ondatra zibethica* is a mammal

How big is it? about 20 in. long; 2-5 lbs

What does it eat? roots, stems, leaves, and fruits of water plants

Where does it live? streams, rivers, ponds, lakes, marshes, estuaries; fresh & brackish water

What is its life cycle? mother gives birth to live young with same body parts as an adult

NORTHERN WATER SNAKE

What is it? *Nerodia sipedon* is a reptile

How big is it? up to 42 in. long

What does it eat? frogs, salamanders, fish, crayfish

Where does it live? streams, rivers, ponds, lakes, marshes, estuaries; fresh & brackish water

What is its life cycle? mother carries eggs inside her body; when the eggs hatch, she gives birth to young that resemble their parents

GREEN FROG

What is it? *Rana clamitans* is an amphibian

How big is it? up to 3½ in. long (not including legs)

What does it eat? adults eat insects, fish, crayfish, smaller frogs, tadpoles, small snakes, & snails; tadpoles eat algae & plants

Where does it live? streams, rivers, ponds, lakes, marshes; fresh water

What is its life cycle? tadpole hatches from egg laid in water; tadpole metamorphoses into adult frog

SNAPPING TURTLE

What is it? *Chelydra serpentina* is a reptile

How big is it? shell up to 14 in. long

What does it eat? omnivore; reptiles, amphibians, fish, small mammals & birds, crayfish, dead animals, plants

Where does it live? streams, rivers, ponds, lakes, marshes, estuaries; fresh & brackish water

What is its life cycle? hatches from egg; baby's body same as adult's

DIAMONDBACK TERRAPIN

What is it? *Malaclemys terrapin* is a reptile

How big is it? shell 6-9 in. long

What does it eat? shrimp, clams, crabs, mussels, some fish & dead animals

Where does it live? salt marshes, estuaries; brackish & salt water

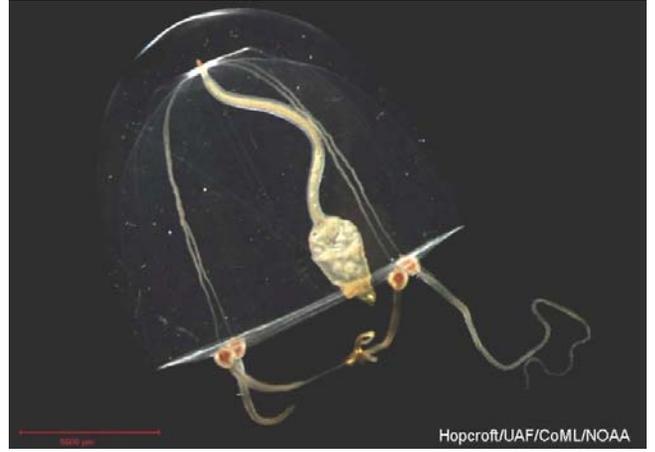
What is its life cycle? hatches from egg; baby's body same as adult's

WILDLIFE of the HUDSON RIVER ESTUARY



Karl Van Ginderdeuren/World Register of Marine Species

COMB JELLY



Hopcroft/UAF/CoML/NOAA

HYDROMEDUSA



Photos from © www.micrographia.com

COPEPODS

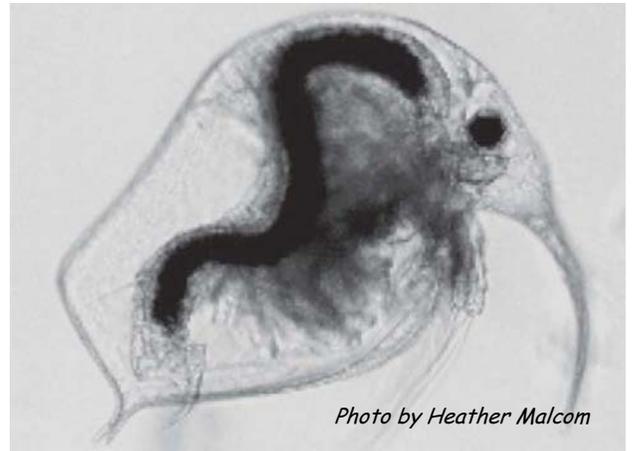


Photo by Heather Malcom

WATER FLEA



Photo by Piet Spaans

PHANTOM MIDGE LARVA



Photo by Marco Spiller

ROTIFER

ZOOPLANKTON of the HUDSON RIVER ESTUARY

HYDROMEDUSA

What is it? *Sarsia tubulosa* is a hydrozoan; related to jellyfish & sea anemones

How big is it? to $\frac{1}{4}$ in. across

What does it eat? tiny zooplankton

Where does it live? ocean, estuaries, bays; brackish & salt water

What is its life cycle? alternates body form; planktonic hydromedusae release eggs that hatch & become hydroids - plant-like forms fixed to the bottom; hydroids produce buds that break off to become new hydromedusae

COMB JELLY

What is it? *Mnemiopsis leidyi* is a ctenophore; unlike jellyfish, it lacks stinging cells

How big is it? species shown (up to 4 in. long)

What does it eat? smaller zooplankton, larval fish, fish eggs

Where does it live? ocean, estuaries, bays; brackish & salt water

What is its life cycle? hatches from egg; young generally look like adult

WATER FLEA

What is it? *Bosmina freyi* is a crustacean; water fleas are properly called cladocerans

How big is it? to 0.6 mm

What does it eat? detritus, algae, plants; some water fleas eat tiny zooplankton

Where does it live? lakes, ponds, rivers, marshes, estuaries, bays; fresh & brackish water

What is its life cycle? hatches from egg; looks a little like adult but molts many times before maturing

COPEPODS

What is it? crustacean; one of many species in genus *Cyclops* (left) & genus *Diaptomus* (right)

How big is it? species shown less than 2 mm ($\frac{1}{10}$ in.) long

What does it eat? detritus, algae, smaller crustaceans

Where does it live? ponds, lakes, rivers, marshes, estuaries, bays, oceans

What is its life cycle? egg hatches into nauplius larva, which after 5-6 molts becomes copepodid larva; becomes adult after 5 more molts

ROTIFER

What is it? an animal in phylum Rotifera; many species

How big is it? up to 2 mm ($\frac{1}{10}$ in.) long, but most are much smaller

What does it eat? detritus, algae, bacteria, & other tiny zooplankton

Where does it live? lakes, ponds, rivers, marshes, estuaries, bays; fresh & brackish water

What is its life cycle? hatches from egg as tiny version of adult

PHANTOM MIDGE LARVA

What is it? an insect; one of many species in genus *Chaoborus*

How big is it? species shown up to $\frac{3}{4}$ in. long

What does it eat? larva eats small crustaceans, other zooplankton

Where does it live? ponds, lakes, rivers, marshes; fresh water

What is its life cycle? larva hatches from egg laid in water; a few weeks or months later forms a pupa; after a few days a flying adult emerges - it lives up to a week

ZOOPLANKTON of the HUDSON RIVER ESTUARY