

The Away Team Advantage: Examples of Invasive Species Adaptations

Adaptations: What traits does the species have that contribute to its spread?

Species	Physical Traits Such as size, colour, shape	Behaviours of the invasive, or human behaviours, that benefit it.	Life Cycle Such as life span, reproduction, dispersal	Food Chain Who eats it, who it eats, diseases, parasites	Other Including other bodysystems, habitat preferences, or ecological changes it creates that it benefits from
ANIMALS					
American bullfrog	<ul style="list-style-type: none"> Large size 	<ul style="list-style-type: none"> Can jump 10X their body length Able to fling their tongue out and catch prey above and below the water 	<ul style="list-style-type: none"> 20,000 eggs laid by one female Long breeding season compared to other frogs Tadpoles are large and take 2 years to develop 	<ul style="list-style-type: none"> Eats everything that can fit in its mouth; fish, other amphibians, ducks. Adults eat animals that would prey on their tadpoles May spread diseases to native amphibians. 	<ul style="list-style-type: none"> Can live in many types of wetland habitats, including small garden ponds, and migrate to other wetlands.

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Yellow perch	<ul style="list-style-type: none"> Banded pattern camouflages young fish from predators 	<ul style="list-style-type: none"> People who like to fish add them (illegally) to lakes and ponds 	<ul style="list-style-type: none"> Spiral shaped strings of 15,000 eggs Reproduces earlier than other fish 	<ul style="list-style-type: none"> Generalist omnivore, eating plants, invertebrates, other fish including young salmon 	
European starling	<ul style="list-style-type: none"> Larger than native cavity-nesting birds 	<ul style="list-style-type: none"> Aggressively removes other birds out of nest sites (kills them and/or the eggs) Social - can be in flocks of hundreds or thousands 	<ul style="list-style-type: none"> Nests in holes in trees OR buildings Lays 4-6 eggs that hatch in only 12 days Females can be “nest parasites”, laying eggs in other birds’ nests 	<ul style="list-style-type: none"> Generalist 	<ul style="list-style-type: none"> Does well in and near human settlements (farms, towns)
Japanese beetle		<ul style="list-style-type: none"> Can fly up to 8 km with wind; grubs can be unknowingly transported in soil 	<ul style="list-style-type: none"> Larvae spend the winter in soil under moist lawns and feed in early spring 	<ul style="list-style-type: none"> Grubs feeds on roots of turf grass and adults feed on the fruit and leaves of more than 300 species of plants 	

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PLANTS					
Baby's breath	<ul style="list-style-type: none"> Plant can roll like a tumbleweed and disperse seeds long distances 	<ul style="list-style-type: none"> Delicate and pretty, so people want to plant it, garden stores use in bouquets 	<ul style="list-style-type: none"> 10,000 seeds Perennial (plant grows and reproduces each year) 	<ul style="list-style-type: none"> Grazers and livestock don't like to eat it 	
Spotted knapweed	<ul style="list-style-type: none"> Bright flowers attract insect pollinators Taproot, hogs water from other plants/does well in drought conditions 	<ul style="list-style-type: none"> Can be spread in hay and vehicles over long distances 	<ul style="list-style-type: none"> 140,000 seeds per m² Can self-pollinate or be pollinated by insects 	<ul style="list-style-type: none"> Toxic to grazing animals and livestock 	<ul style="list-style-type: none"> Releases toxins into soil that inhibit other plants from growing
Eurasian watermilfoil		<ul style="list-style-type: none"> People move it to new locations on boat propellers, trailers or fishing gear, or from dumping aquarium contents 	<ul style="list-style-type: none"> Spreads from roots, seeds, buds, and plant fragments 	<ul style="list-style-type: none"> Grows well in low oxygen, slow moving waters, and its spread makes water slower moving and lower in O₂, benefitting itself. 	

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Giant hogweed	<ul style="list-style-type: none"> Up to 5 m tall 	<ul style="list-style-type: none"> Introduced as an ornamental garden plant 	<ul style="list-style-type: none"> 50,000 seeds on a plant 	<ul style="list-style-type: none"> Has a toxic sap that can burn skin 	<ul style="list-style-type: none"> Does well in disturbed sites like roadsides and ditches
Your Discoveries of Invasive Species					
Create and Invasive All-Star! What are the adaptations of your imaginary invasive creature?					