

# MICHIGAN INVASIVE SPECIES

## Definition of Invasive Species

An invasive species is one that is **not native** and whose introduction **causes harm**, or is likely to cause harm to Michigan's economy, environment or human health.

Many non-native species in Michigan, including fruits, vegetables, field crops, livestock and domestic animals, are important to our economy and lifestyle. Most non-native species are not harmful and may provide economic benefits. Invasive species cause harm when they out-compete native species by reproducing and spreading rapidly in areas where they have no natural predators and change the balance of the ecosystems we rely on.

## How do invasive species get here?

Most invasive species find their way here with the help of humans. Modern means of transportation bring goods, services, people and invasives to all reaches of the globe. Ballast water from ships is to blame for introducing many invasive organisms to Great Lakes waters. Some exotic pets and plants that escape into the wild adapt to local conditions. Insects arriving from abroad in wood packing materials and wood products have caused irreparable damage to native trees and forests. Some invasives were brought to the U.S. intentionally as bio-controls for other invasives; others were introduced as game or food species.

## How do they spread?

What makes many invasives so successful is their ability to colonize new areas very rapidly. For plants, this can mean having seeds that are eaten and distributed by birds, such as autumn olive, seeds that easily disperse or catch on clothing or fur, or plant parts that can reproduce whole plants from cut or broken pieces, like Eurasian watermilfoil.

Gypsy moth egg masses and emerald ash borer larvae have been transported to many sites in Michigan on firewood. Microscopic zebra mussel larvae and many invasive aquatic plants have hitchhiked from one lake to another on watercraft and trailers. Garlic mustard has spread along many roadsides and forest trails with the help of cars, plows, ATVs and hikers. In fact, for many invasives, hitchhiking with humans is a common mode of transportation.

Many non-native species have been introduced into the Great Lakes since the early 1800s, either accidentally or intentionally. Nonindigenous or non-native species are

plants and animals living outside of the area where they evolved. A fraction of these species (about 10%) are considered invasive. Aquatic invasive species are non-native plants, animals and microscopic organisms that have a profound negative impact on an aquatic ecosystem or human activity.

Free from natural predators, invasive species reproduce rapidly in their new homes and compete with native species for food and habitat. They disrupt the aquatic food web by reducing food for native species or by preying directly upon native species. Invasive species are often called “biological pollutants.” They’re costly to manage and have led to a severe loss of biodiversity throughout the world.

In the Great Lakes, zebra and quagga mussels and sea lamprey are among the invasive species that have permanently altered the ecosystem, contributed to declines in native species, and impacted sport and commercial fishing. Invasive plants, such as purple loosestrife and Eurasian watermilfoil, have established themselves in many wetlands and inland lakes, respectively, resulting in a loss of native plants and the wildlife that depend upon them.

Many invasive species in the Great Lakes were transported from foreign ports in the ballast water of ocean-going freighters. Ships often take on ballast water for better balance, stability and safety. Today, the United States and Canada require that most ships entering the Great Lakes exchange their ballast water while still at sea to reduce the transport and introduction of new species. Other species like sea lamprey entered the Great Lakes on their own when shipping canals were modernized. Still other introductions are the result of accidental releases, like when a fisherman is using bait that may not be a native species.

## **How You Can Help**

Prevent the transport of aquatic invasive species. Before leaving a body of water:

- ▶ Remove mud, plants, fish and animals from fishing gear, boats, motors, and trailers.
- ▶ Eliminate water from all equipment, including swimming floats, boat hulls, and bait buckets.
- ▶ Clean and dry anything that came in contact with the water—even boots, clothing, and pets.
- ▶ Do not release or put plants, fish or animals into a body of water unless they came out of it. Dispose of unused fishing bait in the trash.

## SEA LAMPREY

Sea lampreys come from an ancient family of jawless fishes that look like eels. Native to the Atlantic Ocean, they entered the St. Lawrence River and eventually the Great Lakes when the Welland Canal was modernized around 1920. Today sea lampreys are found in all the Great Lakes and many tributaries, with the largest population in northern Lake Huron.

### Characteristics

- Eel-like fish that attach to other fish and feed on body fluids.
- Adults grow 12 to 20 inches long.
- Round, suction disk mouth is filled with sharp teeth.

### Impacts

- Can kill 40 pounds of fish during its life.
- Often kills large, predator fish, causing populations of smaller fish to grow too large.
- Has contributed to declines in native lake trout and whitefish populations in the Great Lakes.

## EURASIAN RUFFE

This fish is native to Europe and Asia. It was first discovered in Minnesota's St. Louis River, the main tributary to western Lake Superior, in 1986. It arrived in the ballast water of an ocean-going vessel.

### Characteristics

- Small, aggressive fish with sharp spines on top and bottom fins.
- Grows rapidly and loves to eat.
- Can tolerate a range of water conditions.

### Impacts

- Makes up an estimated 80 percent of the fish caught in the St. Louis River.
- Has spread to other areas in western Lake Superior, and Thunder Bay, Lake Huron.
- Reduces food and habitat for native fish, such as walleye and perch.

## ROUND GOBY

This fish is originally from the Black and Caspian Seas. It hitched a ride to the Great Lakes in the ballast water of an ocean-going vessel. Round gobies were discovered in the St. Clair River around 1990. They've spread to all of the Great Lakes, with the greatest numbers in Lake Erie, Lake St. Clair, and southern Lake Michigan.

### Characteristics

- Small, bottom-dwelling fish that resembles a large tadpole.
- Known to steal fishing bait and is often caught by anglers.
- Likes to live in rocky places and can survive in poor water quality.

### Impacts

- Displaces native fish, eats their eggs and young, and takes over optimal habitat.
- Spawns multiple times per season. Population grows rapidly.
- Can become the most numerous fish in a given area.

## SPINY WATER FLEA FISHHOOK WATER FLEA

These tiny creatures are distantly related to shrimp, lobster and crayfish. To see them clearly, you need a microscope. The spiny water flea was discovered in Lake Huron in 1984. The fishhook water flea was discovered in Lake Ontario in 1998.

### Characteristics

- Microscopic zooplankton that have long, barbed or hooked tails.
- Tails often catch on fishing lines and downrigger cable.
- Clumps of these zooplankton look and feel like gelatin or cotton batting.

### Impacts

These zooplankton:

- Eat small plankton, reducing food for native Great Lakes zooplankton.
- Compete with small and juvenile (baby) fish for plankton such as Daphnia.
- Not a good food source for native fish. Barbed tail spines are hard to digest.
- Clog nets and fishing line, creating problems for fisherman.

## ZEBRA MUSSELS

These small, striped mussels are about the size of a fingernail. Zebra mussels are native to the Caspian and Aral Seas of Eastern Europe and Western Asia. They traveled to the Great Lakes in the ballast water of ships. Zebra mussels were discovered in Lake St. Clair in 1988

and have spread to all five Great Lakes and many inland lakes.

### Characteristics

- Live in colonies that attach to submerged rocks, dock pilings, boat hulls and even native clams and mussels!
- Filter thousands of gallons of freshwater every day to capture their preferred food—plankton.
- Dead ones can wash up on shore, littering beaches with their sharp shells.

### Impacts

- Filter (eat) large quantities of plankton, reducing food for many native species.
- Cause water to become clearer, which promotes excessive growth of aquatic plants.
- Grow in large clusters that clog water intake pipes, boat motors, and pumps, costing millions of dollars to control each year.
- Attach to native Great Lakes mussels and clams, often smothering them.

## ASIAN CARP: BIGHEAD AND SILVER CARP

These two fish were brought to North America in the early 1970s to remove algae from aquaculture ponds (by eating lots of plankton). They escaped from farms along the Mississippi River during a flood in the early 1990s. These big fish now live in the Mississippi and Illinois rivers, and scientists fear they will enter Lake Michigan.

### Characteristics

These two fish:

- Grow up to 4 feet long. Weigh over 60 pounds.
- Jump more than 15 feet out of the water. Slam into fishing boats.
- Eat more than 40 percent of their body weight each day.

### Impacts

- Eat enormous amounts of plankton—including phytoplankton and zooplankton.
- Could disrupt the Lake Michigan food web and cause problems for fisheries.
- Have been spotted less than 50 miles from Lake Michigan.

## PURPLE LOOSESTRIFE

Early settlers brought purple loosestrife to North America from Europe. They liked the plant's eye-catching purple flowers. From its humble beginnings as a garden plant, purple loosestrife quickly invaded wetlands in nearly every U.S. state and Canadian province.

### Characteristics

- Tall, flowering plant that can grow from 3 to 7 feet high.
- Often found on the edges of wetlands, roadside ditches and other moist areas.
- Perennial plant that regenerates from its roots every spring.
- Bright purple flowers bloom during midsummer.
- Spreads quickly. A mature plant can produce more than 2.5 million seeds each year.

### Impacts

- Competes with native Great Lakes wetland plants and gradually replaces them.
- Not a good food source. When this plant takes over a wetland, ducks, fish, and frogs may leave or die.
- Dense stands of this plant block access to water.

## EURASIAN WATERMILFOIL

Eurasian watermilfoil was first spotted in North America in the 1940s, and some say it was brought here intentionally. Others believe the plant was transported in the ballast water of ships from Northern Europe and Asia. Today, Eurasian watermilfoil thrives in nearly every U.S. state, including Michigan, and three Canadian provinces.

### Characteristics

- Submerged aquatic plant. Forms thick mats on the water's surface.
- Gets tangled in boat propellers and interferes with swimming and fishing.
- Has feathery leaves, and small red flowers that bloom above water in early summer.

### Impacts

- Inhabits inland lakes including some in the Great Lakes region.
- Forms tangled mats that interfere with boating, swimming, and fishing.
- Prevents sunlight from reaching native aquatic plants.
- Reproduces from fragments. Spreads easily by clinging to boats, trailers, and fishing gear.



photo: Dave Brenner

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photo: Dave Jude

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CUT

FOLD

CUT

FOLD



photo: Simon van Mechelen

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photo: David Flecks

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CUT

FOLD

CUT

FOLD

# Challenges Facing Estuaries: Invasive Species

by The Environmental Protection Agency

This text is taken from the United States Environmental Protection Agency's website. This text has been adapted for use by ReadWorks.

Estuaries are places where freshwater rivers and streams flow into the ocean, mixing with the seawater. A wide variety of birds, fish, and other wildlife make estuaries their home. Unfortunately, a number of challenges are threatening the health of estuaries and the wildlife that lives there. One of those challenges is the spread of invasive species.

Sometimes plants and animals that don't grow naturally in an area, also known as "invasive species," can end up in estuaries-either accidentally or intentionally. This can drive out "native" plants and animals; destroy the surrounding habitat; interfere with people who are trying to boat, fish, or swim there; and introduce pathogens into the environment.

Invasive species can spread quickly because they have no natural predators or little competition from other species. Examples include oyster drills, Chinese mitten crabs, and Brazilian pepper trees. These and other invasive species often wind up in estuaries as accidental passengers on ships. Sometimes fish or plants are imported into the country to be sold in aquariums, raised in nurseries, or used in ornamental landscaping but make their way into estuaries by accident.



Bill Frank (CC BY-SA 4.0)  
*an oyster drill*



Dreamyshade (CC BY-SA 3.0)  
*a Brazilian pepper tree*

# Long-Term Monitoring of the Hudson River

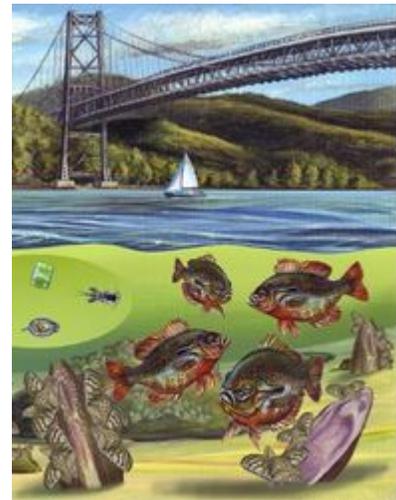
by American Museum of Natural History

This article is provided courtesy of the American Museum of Natural History.

## A puzzling reversal

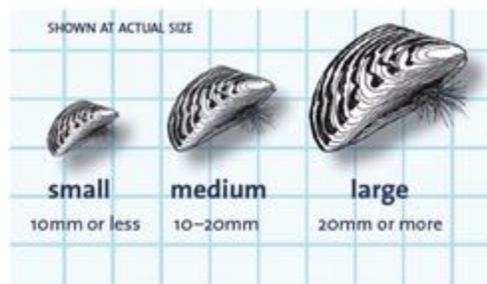
In 2005, 14 years after the first sighting of zebra mussels in the Hudson River, Cary Institute scientists noticed an unexpected change in the river: zooplankton had returned to the same levels as before the invasion. Why weren't the zebra mussels eating as much zooplankton?

Then the scientists observed a change in the zebra mussels they were collecting from the river. Zebra mussels are grouped into three sizes: small (less than 10 mm), medium (10-20 mm), and large (more than 20 mm). While there were still many zebra mussels in the Hudson River, the overall number of zebra mussels was slightly declining, and they were on average much smaller. Populations of the largest - or oldest mussels - were declining greatly. Zebra mussels can live six or seven years, but now it seemed that most were dying after only one or two years. Adult zebra mussels had less than one percent chance of surviving a given year. The impact of the zebra mussel invasion was changing.



If there were fewer large zebra mussels, it made sense that there was more zooplankton. That's because large zebra mussels feed on bigger food particles like zooplankton. Smaller zebra mussels can eat only smaller particles like phytoplankton and bacteria.

*WHAT HAPPENS NEXT? What's the future of the Hudson River ecosystem now that zebra mussels have arrived? Only time and observation will tell.*

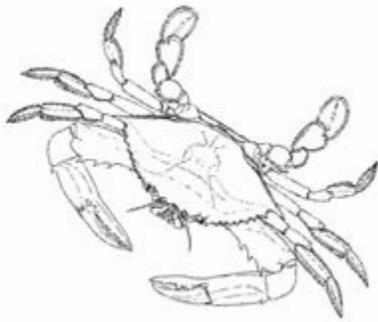


ZEBRA MUSSEL AVERAGE SIZES

These new effects rippled through the food web. As zooplankton rebounded, so did native mussels and clams. Scientists anticipate some fish species will rebound too as their food supply increases. Scientists don't know exactly what caused the decline in large zebra mussels, but they do know blue crabs were eating some of them.

## More time, more data, more answers... and more questions

By monitoring several aspects of the Hudson River over many years, Cary Institute scientists are beginning to answer their original question: How might a zebra mussel invasion affect the Hudson River ecosystem? Early on during the invasion, zebra mussels survived, thrived, and had a huge impact on the ecosystem's food web - just as scientists had predicted.



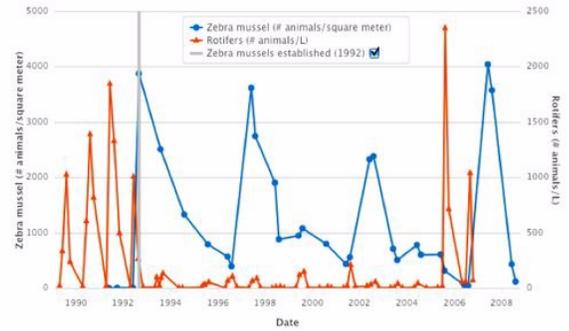
*Blue crabs are a bottomdwelling predator and a chief consumer of bivalves and other crustaceans, including zebra mussels.*

changes to the Hudson River ecosystem.

Almost 20 years later, the number of zebra mussels has declined overall. And

parts of the ecosystem, such as the number of zooplankton, native mussels, and clams, have started to increase. But is this the end of the story? Or have we just seen the first two stages of an invasion that might have three or four stages, or more?

As their data grows, the scientists are able to track changes in the river - whether from pollution, weather, sea level rise, invasive species, or human activity - and to pose new questions. This broad approach also puts Cary scientists in a unique position to investigate future



**ANALYZE THIS** This graph shows the amounts of rotifers (or zooplankton, shown with an orange line and triangles) and zebra mussels (shown with a blue line and circles) in the Hudson River over 20 years. Look at what happens in the last five years of the graphed data: what do you think is happening to the ecosystem?

## 5 BOX WRITING CONNECTORS

Thesis Statement/Introduction



Before \_\_\_\_\_  
 First  
 First and foremost  
 First of all  
 From one perspective  
 On one hand  
 On the one side  
 One reason  
 One example  
 To begin with  
 To start off  
 To start with



Additionally  
 Along with \_\_\_\_\_  
 Also  
 As a result  
 Equally important  
 From a different perspective  
 Furthermore  
 In addition  
 Likewise  
 Moreover  
 Next  
 On the other hand  
 Second



Additionally  
 After careful consideration  
 As a result  
 Based on the evidence  
 Finally  
 Fortunately  
 Furthermore  
 In addition  
 Likewise  
 Last  
 Last but not least  
 Thankfully  
 Third



When you stop to think about it

All in all  
 In conclusion  
 On the whole  
 To sum up

As one can see  
 In other words  
 So you can see  
 Ultimately

Certainly  
 In summary  
 Surely  
 To reiterate

So then  
 In the end  
 In closing  
 Without a doubt

Definitely  
 Naturally  
 Therefore  
 Simply stated

Hands down  
 To be sure  
 Truly  
 After all

As we have seen  
 Obviously  
 To summarize  
 Once again

Hence  
 Clearly  
 In any case  
 In short

## SHORT STORY/NARRATIVE CONNECTORS

In the beginning	That morning	Out of the blue	At (given time)	A long time ago
Immediately	Suddenly	Until	Eventually	Finally
For the time being	Soon	The next day	After that	One _____ later
Fortunately	In the end	Later on	Meanwhile	As soon as
Out of nowhere	All of of sudden	To be sure	Thankfully	Gradually
In a flash	Little by little	Without warning	Just then	Before I knew it
With this in mind	To the left/right	Under/Near/Around/By/Beyond	Earlier	With regard to



# WRITER'S TOOLBOX



## ADJECTIVES (SENSORY DETAILS)

<b>SOUND WORDS</b>				
Hanging	croaking	laughing	ringing	tinkling
Barking	crunching	moaning	rumbling	thudding
Bawling	crying	mooring	rustling	thumping
Blaring	dripping	mumbling	scratching	ticking
Booming	exploding	muttering	screaming	twittering
Buzzing	fizzing	noisy	screeching	warbling
Chattering	gagging	peeping	singing	wheezing
Chiming	gasping	piercing	slamming	whimpering
Chirping	giggling	pinging	shouting	whining
Clanging	grating	plopping	silent	whispering
Clicking	grunting	quacking	snoring	whooping
Clinking	gurgling	quiet	splashing	
Cooing	hissing	rapping	squawking	
Coughing	hankng	rasping	stuttering	
Crackling	jangling	riming	tearing	
<b>TOUCH WORDS</b>				
Abrasive	feathery	knobbed	sandy	spongy
Biting	fine	lacy	scalding	steamy
Boiling	fluffy	leathery	scorching	steely
Bubby	foamy	light	scratchy	sticky
Bulky	freezing	lukewarm	scummy	stifled
Bumpy	furry	matted	shaggy	stinging
Burning	fuzzy	metallic	sharp	stony
Bushy	glassy	moist	silky	stubby
Clammy	gluey	mushy	slimy	tangled
Coarse	grainy	numbing	slippery	tender
Cool	greasy	oily	sloppy	tepid
Cottony	gritty	piercing	smooth	thick
Crisp	gushy	plastic	smothering	tickling

<b>TOUCH WORDS</b>				
Cushioned	hairy	pocked	soapy	tough
Damp	heavy	pointed	soft	velvety
Downy	hot	pulpy	sopping	warm
Drenched	humid	rocky	soupy	waxy

<b>TASTE AND SMELL WORDS</b>				
Acid	doughy	minty	rank	sweaty
Acidic	earthy	moist	raw	sweet
Acrid	floury	moldy	rich	tangy
Alkaline	flowery	musky	rotten	tasteless
Aromatic	fresh	musty	salty	tough
Biting	fruity	oily	scented	vile
Bitter	garlicky	perfumed	sharp	vinegary
Bland	hearty	pickled	sour	
Burnt	hot	piney	spicy	
Buttery	lemony	plastic	spoiled	
Cold	medicinal	pungent	stagnant	

<b>SIGHT WORDS</b>				
Abrasive	feathery	knobbed	sandy	spongy
Biting	fine	lacy	scalding	steamy
Boiling	fluffy	leathery	scorching	steely
Bubbly	foamy	light	scratchy	sticky
Bulky	freezing	lukewarm	scummy	stifled
Bumpy	furry	matted	shaggy	stinging
Burning	fuzzy	metallic	sharp	stony
Bushy	glassy	moist	silky	stubby
Clammy	gluey	mushy	slimy	tangled
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Cool	greasy	oily	sloppy	tepid
Cottony	gritty	piercing	smooth	thick
Crisp	gushy	plastic	smothering	tickling
Cushioned	hairy	pocked	soapy	tough
Damp	heavy	pointed	soft	velvety
Downy	hot	pulpy	sopping	warm
Drenched	humid	rocky	soupy	waxy

## Young Author's List of Strong Verbs

This list of 180 strong verbs will help you get started on the road to colorful, dazzling writing. Feel free to add other interesting, vivid verbs you find in books, newspapers, and magazines.

aimed	devoured	hailed	ransacked	stamped
anticipated	diapered	hiccupped	reassured	steamed
arranged	disciplined	high-fived	recorded	stitched
backpacked	dog paddled	howled	rejoiced	strained
backtracked	double-checked	humiliated	relished	stretched
ballooned	doused	iced	rescued	strode
bamboozled	drained	irritated	ripped	stuffed
bandaged	dreaded	jabbed	rocked	tanged
baptized	drooped	jack-knifed	rowed	tap-danced
blasted	dusted	juggled	sabotaged	teased
blotted	eased	karate chopped	sanded	thawed
boiled	ejected	leaped	sassed	throttled
bolted	electrocuted	lumbered	sauntered	thundered
botched	enfolded	luxuriated	scoured	ticked
bounded	enveloped	magnified	scraped	tip-toed
bulldozed	erased	manipulated	scratched	toasted
bullied	evaporated	meandered	scribbled	trespassed
burped	fired	measured	scribbled	trucked
chastised	flattered	melted	shaved	tucked
chattered	flipped	monopolized	shivered	twisted
chauffeured	flirted	mystified	shrieked	twitched
cheapened	focused	oozed	shrugged	viewed
cherished	french-braided	outwitted	shuddered	vindicated
chucked	frolicked	papered	side-stepped	volunteered
clipped	frosted	parachuted	slam-dunked	waltzed
conducted	glowed	pasted	slimed	weighed
consoled	goofed	patted	slithered	wiggled
constructed	grated	peered	smirked	wiped
corked	greased	piggybacked	sneezed	wisecracked
crawled	grilled	pitter-pattered	snooped	withered
crooned	groned	plucked	snoozed	wormed
cultivated	guaranteed	pobched	splattered	worshiped
decorated	guffawed	pounded	spiced	wrangled
delved	gurgled	praised	splurged	wrenched
demolished	hammered	pranced	sprinted	wrinkled
despised	harvested	raged	squished	yelped

## "SAID IS DEAD" CHOICES

Acknowledged	Gasped
Added	Growled
Admitted	Grunted
Advised	Hinted
Affirmed	Insisted
Agreed	Interjected
Announced	Interrupted
Answered	Joked
Argued	Lied
Asserted	Maintained
Assured	Mentioned
Mumbled	Murmured
Avowed	Offered
Bellowed	Offered
Blurted	Ordered
Bragged	Panted
Cautioned	Pleaded
Challenged	Pointed out
Claimed	Prayed
Conceded	Proclaimed
Concluded	Proposed
Confessed	Proposed
Continued	Protested
Cried	Quipped
Decided	Ranted
Declared	
Demanded	
Denied	
Disclosed	
Divulged	
Emphasized	
Estimated	
Explained	



4 DIFFERENT WAYS TO START A SENTENCE	ADVERB WORD LIST		PREPOSITIONAL PHRASES	
1. Question → Who, How, Where, When, Do/Did, What, Which, Why, Will	carefully	instantly	Over the hill,	Down the road,
2. Exclamation → Aha! Ahhh! Alas! Shhh! Hey! Yikes! Yeah! Yuck! Phew! Brrr!	correctly	elegantly	Behind the door,	Near the waterfall,
3. Adverb First → <i>Slowly</i> , the rickety bus rides down the road.	eagerly	energetically	At my house,	Across the room,
4. Prepositional Phrase First → <i>Down the road</i> , the rickety bus rides slowly.	easily	hastily	Without a coat,	Around the corner,
	loudly	neatly	During lunch,	Inside my head,
	patiently	loosely	Atop the mountain,	Between the trees,
	quickly	lovingly	Beneath the ground,	Above the clouds,
	quietly	loyally	After the fall,	On the beach sand,
	gently	painfully	Behind my chair,	Into outer space,
	gladly	dangerously	Beyond the sunset,	Through the trees,
	naturally	perfectly	Amid the crowd,	Toward the horizon,
	majestically	enthusiastically	Against the current,	Within his heart,

**A:**

**B:**

**C:**

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resource(s):

resource(s):

resource(s):

# MY "PRE-WRITE" ACTIVITY

- REVIEW YOUR "ORGANIZED WRITING" NOTES
- OPEN WITH AN **INTRODUCTION** (THESIS) THAT CAPTURES THE READER'S ATTENTION
- DEVELOP REASONS, FACTS OR EXAMPLES TO **SUPPORT** YOUR INTRODUCTION (THESIS)
- ELABORATE** AND **SUMMARIZE** THE INFORMATION IN YOUR OWN WORDS

- USE AT LEAST **4 TRANSITION** WORDS/PHRASES TO **CONNECT** IDEAS
- GIVE A STRONG **CONCLUSION** (WRAP-UP)
- PUNCTUATE** AND **CAPITALIZE** CORRECTLY
- USE NEAT **HANDWRITING** AND SPELL MOST WORDS **ACCURATELY**

**TITLE:**

Introduction (Thesis)	
Supporting Details (Body)	
Conclusion (Wrap-Up)	

**5 BOX PLAN: WRITING ORGANIZER****TOPIC: INVASIVE SPECIES****PLAN APPROVAL:****Overall Guiding Question(s):**

1) Thesis Statement A:

1) Thesis Statement B:

**Supporting Detail A:****Supporting Detail B:****Supporting Detail C:**2) \_\_\_\_\_,  
(connector)3) \_\_\_\_\_,  
(connector)4) \_\_\_\_\_,  
(connector)

Fact/Reason/Detail 1:

Fact/Reason/Detail 1:

Fact/Reason/Detail 1:

Fact/Reason/Detail 2:

Fact/Reason/Detail 2:

Fact/Reason/Detail 2:

Fact/Reason/Detail 3:

Fact/Reason/Detail 3:

Fact/Reason/Detail 3:

5) \_\_\_\_\_,  
(Conclusion A)5) \_\_\_\_\_,  
(Conclusion B)

# WRITING SELF-CHECK

# WRITING PEER-CHECK

Read the writing out loud and carefully look/listen for the following:

Read the writing out loud and carefully look/listen for the following:

The writing is truly <b>persuasive</b> and convinces the reader		The writing is truly <b>persuasive</b> and convinces the reader	
The writing opens with a <b>thesis</b> that grabs your <b>attention</b>		The writing opens with a <b>thesis</b> that grabs your <b>attention</b>	
The writing <b>elaborated</b> each <b>supporting detail</b>		The writing <b>elaborated</b> each <b>supporting detail</b>	
The writing has at least <b>4 transition</b> words/phrases		The writing has at least <b>4 transition</b> words/phrases	
The writing is <b>organized</b> in a logical order		The writing is <b>organized</b> in a logical order	
The writing gives a <b>strong conclusion</b>		The writing gives a <b>strong conclusion</b>	
The writing is <b>punctuated</b> and <b>capitalized</b> correctly		The writing is <b>punctuated</b> and <b>capitalized</b> correctly	
The writing uses <b>complete sentences</b>		The writing uses <b>complete sentences</b>	
The writing <b>follows</b> my <b>5 BOX Plan</b>		The writing <b>follows</b> his/her <b>5 BOX Plan</b>	
The writing is <b>interesting</b> to read		The writing is <b>interesting</b> to read	
The writing's <b>font</b> is "Arial"		The writing's <b>font</b> is "Arial"	
The title is font <b>size 20</b>		The title is font <b>size 20</b>	
The author's name, date, and essay are font <b>size 14</b>		The author's name, date, and essay are font <b>size 14</b>	
The author's name and date are <b>centered</b> below the title		The author's name and date are <b>centered</b> below the title	
The writing is correctly <b>color-coded</b> (green, orange, red)		The writing is correctly <b>color-coded</b> (green, orange, red)	

MY SIGNATURE:

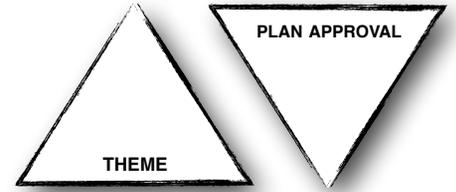
\_\_\_\_\_

PEER SIGNATURE:

\_\_\_\_\_

TEACHER APPROVAL TO PUBLISH FINAL DRAFT: \_\_\_\_\_

# SHORT STORY SNAPSHOT



**This story is about...**

**Genre:**  Realistic Fiction  Mystery  Personal Narrative  Science/Historical Fiction  Fantasy/Myth/Fable

**Point of View:**  1<sup>st</sup> person (I, me, my, mine)  3<sup>rd</sup> person *limited* (narrator is an outside observer)  3<sup>rd</sup> person *omniscient* (narrator knows how everyone feels/thinks)

ORDER	ELEMENT	DETAILS	SENSORY DETAILS	STRONG VERBS
	Problem/Conflict			
	Introduce Setting (time and place)			
	Introduce Main Characters			
	Main Event 1			
	Main Event 2			
	Main Event 3			
	Climax/M.V.P. (or problem solved)			
	Conclusion (or how it all ends)			

SHORT STORY TITLE:

THEME:

AT LEAST 6 "SENSORY DETAILS" (ADJECTIVES) UNDERLINED **BLUE**

AT LEAST 3 DIFFERENT SENTENCE STARTS UNDERLINED **PURPLE**

AT LEAST 5 STRONG VERBS UNDERLINED **RED**

AT LEAST 2 SOUND WORDS OR IDIOMS UNDERLINED **PINK**

AT LEAST 4 TIME CONNECTORS UNDERLINED **GREEN**

AT LEAST 1 SIMILE/METAPHOR UNDERLINED **ORANGE**

PROBLEM:

SETTING:

POINT OF VIEW:  1ST POV  3RD POV

1

2

3

4

5

6

7

8

9

10

*(use additional sheet of notebook paper if needed)*

PROOFREADING:



insert: add something



use period here



delete



close up this space



space needed



capitalize



lowercase



check spelling



switch these things

READY TO TYPE 1ST DRAFT? \_\_\_\_\_

(DO PEER CHECKS AFTER TYPING)

# TYPE DRAFT FIRST, THEN COMPLETE PEER CHECKS 1 & 2

<p><b>DISCUSSION # 1</b> (SHARE WITH YOUR PEER)</p> <p><input type="checkbox"/> The <b>setting</b> of my story is...</p> <p><input type="checkbox"/> The <b>main characters</b> are...</p> <p><input type="checkbox"/> The fascinating <b>problem/plot</b> is...</p> <p><input type="checkbox"/> Some of the <b>main events</b> are...</p> <p><input type="checkbox"/> It <b>ends</b> with...</p> <p>Peer Signature: _____</p>	<p style="text-align: right;"><b>DISCUSSION # 2</b> (FIRST READ THE STORY TO YOUR PEER)</p> <p><input type="checkbox"/> So far, what's your <b>favorite part</b> of the story? Why?</p> <p><input type="checkbox"/> What do you have a <b>question</b> about?</p> <p><input type="checkbox"/> What would you suggest I <b>change</b> or <b>include</b>? Why?</p> <p style="text-align: right;">Peer Signature: _____</p>																								
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TEACHER APPROVAL TO PUBLISH FINAL DRAFT: \_\_\_\_\_

# CYCLE 2 POETRY

## A CINQUAIN POEM

### KEYS TO THE CINQUAIN:

- Line 1:  
One noun that is both the subject and title.
- Line 2:  
Two adjectives describing the Line 1 noun.
- Line 3:  
Three verbs with –ing that tell an action related to the Line 1 noun.
- Line 4:  
Four words in a complete sentence that describe a feeling about the Line 1 noun.
- Line 5:  
One word that means the same thing as the Line 1 noun.

### EXAMPLE:

*Beach*

*Sandy, salty*

*Swimming, playing, sunning*

*I love the beach.*

*Seashore*

## Cinquain Poem #1

## Cinquain Poem #2

