

**Appendix G – Galveston Bay Invasive Species Risk Assessment
Risk Scores for the 84 Species Ranked According to Individual Risk Assessment Criteria**

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Likelihood

Likelihood of invasive species to impact Galveston Bay watershed at ecosystem level

Species Name	Common Name	Risk Score	Habitat
<i>Alternanthera philoxeroides</i>	Alligatorweed	5	FW
<i>Corbicula fluminea</i>	Asian clam	5	FW
<i>Pomacea canaliculata</i>	Channeled applesnail	5	FW
<i>Triadica sebifera</i>	Chinese tallow tree, popcorn tree	5	Terr
<i>Salvinia minima</i>	Common salvinia, water spangles	5	FW
<i>Eichhornia crassipes</i>	Common water hyacinth	5	FW
<i>Cyperus entrerianus</i>	Deep-rooted sedge	5	Terr
<i>Colocasia esculenta</i>	Elephant ear, coco yam, Wild Taro	5	Terr
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	5	FW
<i>Gymnodinium sp.</i>	Exotic red tide species	5	Est Mar
<i>Salvinia molesta</i>	Giant salvinia, kariba weed	5	FW
<i>Ctenopharyngodon idella</i>	Grass carp	5	FW
<i>Oreochromis sp.</i>	Hybrid tilapia	5	FW
<i>Hydrilla verticillata</i>	Hydrilla, waterhyme, Florida elodea	5	FW
<i>Solenopsis invicta</i>	Red imported fire ant	5	Terr
<i>Cichlasoma cyanoguttatum</i>	Rio Grande cichlid	5	FW
<i>Zoobotryon verticillatum</i>	Sauerkraut grass	5	Est Mar
<i>Hypostomus plecostomus.</i>	Suckermouth catfish, plecostomus	5	FW
<i>Pistia stratiotes</i>	Water lettuce	5	FW
<i>Hemigrapsus sanguineus</i>	Asian shore crab	4	Est Mar
<i>Monopterus albus</i>	Asian swamp eel	4	FW
<i>Phyllorhiza punctata</i>	Australian spotted jellyfish	4	Est Mar
<i>Litopenaeus stylirostris</i>	Blue shrimp	4	Est Mar
<i>Schinus terebinthifolius</i>	Brazilian Pepper	4	Terr
<i>Perna perna</i>	Brown mussel, Mexihalo mussel	4	Est Mar
<i>Eriocheir sinensis</i>	Chinese mitten crab	4	Est Mar
<i>Imperata cylindrica</i>	Cogongrass	4	Terr
<i>Carcinus Maenas</i>	European green crab	4	Est Mar
<i>Perna viridis</i>	Green mussel	4	Est Mar
<i>Cuscuta japonica</i>	Japanese dodder	4	Terr
<i>Pueraria lobata, Pueraria Montana</i>	Kudzu, Japanese arrowroot	4	Terr
<i>Carcinus aestuarii</i>	Mediterranean green crab	4	Est Mar
<i>Melaleuca quinquenervia</i>	Melaleuca, punktree, cajeput, Australian paperback	4	Terr
<i>Channa argus</i>	Northern Snakehead	4	FW

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<i>Myocastor coypus</i>	<i>Nutria</i>	4	Est Mar
<i>Ceratocystis fagacearum</i>	<i>Oak wilt</i>	4	Terr
<i>Litopenaeus vannamei</i>	<i>Pacific white shrimp</i>	4	Est Mar
<i>Lythrum salicaria</i>	<i>Purple loosestrife</i>	4	FW
<i>Melanoides tuberculatus</i>	<i>Red-rim melania</i>	4	Est Mar
<i>Tamarix ramosissima</i>	<i>Saltcedar, tamarisk</i>	4	Terr
<i>Paspalum urvillei</i>	<i>Vaseygrass</i>	4	Terr
<i>Rapana venosa</i>	<i>Veined rapa whelk</i>	4	Est Mar
<i>Ipomoea aquatica</i>	<i>Water spinach, swamp morning-glory</i>	4	FW
<i>Dreissena polymorpha</i>	<i>Zebra mussel</i>	4	FW
<i>Apis mellifera scutellata</i>	<i>Africanized honeybee</i>	3	Terr
<i>Linepithema humile</i>	<i>Argentine ant</i>	3	Terr
<i>Caulerpa taxifolia</i>	<i>Caulerpa seaweed</i>	3	Est Mar
<i>Ligustrum sinense</i>	<i>Chinese privet</i>	3	Terr
<i>Felis domesticus</i>	<i>Feral cat</i>	3	Terr
<i>Sus scrofa</i>	<i>Feral pig</i>	3	Terr
<i>Coptotermes formosanus</i>	<i>Formosan subterranean termite</i>	3	Terr
<i>Arundo donax</i>	<i>Giant reed, giant cane</i>	3	Terr
<i>Heterosigma akashiwo</i>	<i>Golden-brown micro-alga</i>	3	Est Mar
<i>Charybdis hellerii</i>	<i>Indo-Pacific swimming crab</i>	3	Est Mar
<i>Rosa bracteata</i>	<i>Macartney rose</i>	3	Terr
<i>Rosa multiflora</i>	<i>Multiflora rose</i>	3	Terr
<i>Diadumene lineata</i>	<i>Orange-striped sea anemone</i>	3	Est Mar
<i>Drymonema dalmatinum</i>	<i>Peptol jellyfish</i>	3	Est Mar
<i>Blastobasis graminea</i>	<i>Sugarcane borer</i>	3	Terr
<i>Daphnia lumholtzi</i>	<i>Water flea</i>	3	FW
<i>Didemnum perlucidum</i>	<i>Ascidian</i>	2	Est Mar
<i>Anoplophora glabripennis</i>	<i>Asian long-horned beetle</i>	2	Terr
<i>Aedes albopictus</i>	<i>Asian tiger mosquito</i>	2	Terr
<i>Wisteria sinensis</i>	<i>Chinese wisteria</i>	2	Terr
<i>Codium fragile tomentosoides</i>	<i>Dead man's fingers</i>	2	Est Mar
<i>Streptopelia decaocto</i>	<i>Eurasian collared dove</i>	2	Terr
<i>Sturnus vulgaris</i>	<i>European Starling</i>	2	Terr
<i>Cichla monoculus</i>	<i>Fire-belly peacock cichlid</i>	2	FW
<i>Lonicera japonica</i>	<i>Japanese honeysuckle, Hall's honeysuckle</i>	2	Terr
<i>Ligustrum japonicum</i>	<i>Japanese ligustrum</i>	2	Terr
<i>Cichla ocellaris</i>	<i>Peacock cichlid</i>	2	FW

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<i>Boccardella ligERICA</i>	<i>Polychaete worm</i>	2	Est Mar
<i>Cichla temensis</i>	<i>Speckled pavon</i>	2	FW
<i>Flavivirus sp.</i>	<i>West Nile Virus (WNV)</i>	2	Terr
<i>Palaemon africanus</i>	<i>African prawn</i>	1	Est Mar
<i>Dichanthium aristatum</i>	<i>Angleton bluestem</i>	1	Terr
<i>Botryllus niger</i>	<i>Ascidian</i>	1	Est Mar
<i>Botryllus schlosseri</i>	<i>Ascidian</i>	1	Est Mar
<i>Crassostrea ariakensis</i>	<i>Chinese river oyster</i>	1	Est Mar
<i>Sorghum halepense</i>	<i>Johnsongrass</i>	1	Terr
<i>Dichanthium annulatum</i>	<i>Kleberg bluestem</i>	1	Terr
<i>Astyanax mexicanus</i>	<i>Mexican tetra</i>	1	FW
<i>Crassostrea gigas</i>	<i>Pacific oyster</i>	1	Est Mar
<i>Bothriochloa ischaemum var. songarica</i>	<i>Yellow bluestem, King Ranch bluestem</i>	1	Terr

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Severity

Potential site specific and ecosystem-wide impacts; expected percent loss of ecosystem biodiversity to impacts

Species Name	Common Name	Risk Score	Habitat
<i>Monopterus albus</i>	Asian swamp eel	5	FW
<i>Schinus terebinthifolius</i>	Brazilian Pepper	5	Terr
<i>Triadica sebifera</i>	Chinese tallow tree, popcorn tree	5	Terr
<i>Salvinia molesta</i>	Giant salvinia, kariba weed	5	FW
<i>Hydrilla verticillata</i>	Hydrilla, waterhyme, Florida elodea	5	FW
<i>Pueraria lobata, Pueraria Montana</i>	Kudzu, Japanese arrowroot	5	Terr
<i>Lythrum salicaria</i>	Purple loosestrife	5	FW
<i>Eriocheir sinensis</i>	Chinese mitten crab	4	Est Mar
<i>Ligustrum sinense</i>	Chinese privet	4	Terr
<i>Salvinia minima</i>	Common salvinia, water spangles	4	FW
<i>Eichhornia crassipes</i>	Common water hyacinth	4	FW
<i>Cyperus entrerianus</i>	Deep-rooted sedge	4	Terr
<i>Carcinus Maenas</i>	European green crab	4	Est Mar
<i>Cichla monoculus</i>	Fire-belly peacock cichlid	4	FW
<i>Ctenopharyngodon idella</i>	Grass carp	4	FW
<i>Carcinus aestuarii</i>	Mediterranean green crab	4	Est Mar
<i>Melaleuca quinquenervia</i>	Melaleuca, punktree, cajeput, Australian paperback	4	Terr
<i>Channa argus</i>	Northern Snakehead	4	FW
<i>Ceratocystis fagacearum</i>	Oak wilt	4	Terr
<i>Solenopsis invicta</i>	Red imported fire ant	4	Terr
<i>Tamarix ramosissima</i>	Saltcedar, tamarisk	4	Terr
<i>Zoobotryon verticillatum</i>	Sauerkraut grass	4	Est Mar
<i>Cichla temensis</i>	Speckled pavon	4	FW
<i>Rapana venosa</i>	Veined rapa whelk	4	Est Mar
<i>Pistia stratiotes</i>	Water lettuce	4	FW
<i>Ipomoea aquatica</i>	Water spinach, swamp morning-glory	4	FW
<i>Dreissena polymorpha</i>	Zebra mussel	4	FW
<i>Alternanthera philoxeroides</i>	Alligatorweed	3	FW
<i>Linepithema humile</i>	Argentine ant	3	Terr
<i>Hemigrapsus sanguineus</i>	Asian shore crab	3	Est Mar
<i>Phyllorhiza punctata</i>	Australian spotted jellyfish	3	Est Mar
<i>Litopenaeus stylirostris</i>	Blue shrimp	3	Est Mar
<i>Pomacea canaliculata</i>	Channeled applesnail	3	FW

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Severity

Potential site specific and ecosystem-wide impacts; expected percent loss of ecosystem biodiversity to impacts

<i>Imperata cylindrica</i>	Cogongrass	3	Terr
<i>Codium fragile tomentosoides</i>	Dead man's fingers	3	Est Mar
<i>Colocasia esculenta</i>	Elephant ear, coco yam, Wild Taro	3	Terr
<i>Gymnodinium sp.</i>	Exotic red tide species	3	Est Mar
<i>Perna viridis</i>	Green mussel	3	Est Mar
<i>Oreochromis sp.</i>	Hybrid tilapia	3	FW
<i>Cuscuta japonica</i>	Japanese dodder	3	Terr
<i>Rosa bracteata</i>	Macartney rose	3	Terr
<i>Rosa multiflora</i>	Multiflora rose	3	Terr
<i>Melanoides tuberculatus</i>	Red-rim melania	3	Est Mar
<i>Blastobasis graminea</i>	Sugarcane borer	3	Terr
<i>Paspalum urvillei</i>	Vaseygrass	3	Terr
<i>Palaemon africanus</i>	African prawn	2	Est Mar
<i>Apis mellifera scutellata</i>	Africanized honeybee	2	Terr
<i>Dichanthium aristatum</i>	Angleton bluestem	2	Terr
<i>Didemnum perlucidum</i>	Ascidian	2	Est Mar
<i>Corbicula fluminea</i>	Asian clam	2	FW
<i>Perna perna</i>	Brown mussel, Mexihalo mussel	2	Est Mar
<i>Caulerpa taxifolia</i>	Caulerpa seaweed	2	Est Mar
<i>Wisteria sinensis</i>	Chinese wisteria	2	Terr
<i>Crassostrea ariakensis</i>	Chinese river oyster	2	Est Mar
<i>Streptopelia decaocto</i>	Eurasian collared dove	2	Terr
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	2	FW
<i>Sturnus vulgaris</i>	European Starling	2	Terr
<i>Felis domesticus</i>	Feral cat	2	Terr
<i>Sus scrofa</i>	Feral pig	2	Terr
<i>Coptotermes formosanus</i>	Formosan subterranean termite	2	Terr
<i>Arundo donax</i>	Giant reed, giant cane	2	Terr
<i>Heterosigma akashiwo</i>	Golden-brown micro-alga	2	Est Mar
<i>Charybdis hellerii</i>	Indo-Pacific swimming crab	2	Est Mar
<i>Lonicera japonica</i>	Japanese honeysuckle, Hall's honeysuckle	2	Terr
<i>Ligustrum japonicum</i>	Japanese ligustrum	2	Terr
<i>Sorghum halepense</i>	Johnsongrass	2	Terr
<i>Dichanthium annulatum</i>	Kleberg bluestem	2	Terr
<i>Myocastor coypus</i>	Nutria	2	Est Mar
<i>Litopenaeus vannamei</i>	Pacific white shrimp	2	Est Mar
<i>Cichla ocellaris</i>	Peacock cichlid	2	FW

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Severity

Potential site specific and ecosystem-wide impacts; expected percent loss of ecosystem biodiversity to impacts

<i>Drymonema dalmatinum</i>	Peptol jellyfish	2	Est Mar
<i>Cichlasoma cyanoguttatum</i>	Rio Grande cichlid	2	FW
<i>Daphnia lumholtzi</i>	Water flea	2	FW
<i>Flavivirus sp.</i>	West Nile Virus (WNV)	2	Terr
<i>Bothriochloa ischaemum var. songarica</i>	Yellow bluestem, King Ranch bluestem	2	Terr
<i>Botryllus niger</i>	Ascidian	1	Est Mar
<i>Botryllus schlosseri</i>	Ascidian	1	Est Mar
<i>Anoplophora glabripennis</i>	Asian long-horned beetle	1	Terr
<i>Aedes albopictus</i>	Asian tiger mosquito	1	Terr
<i>Astyanax mexicanus</i>	Mexican tetra	1	FW
<i>Diadumene lineata</i>	Orange-striped sea anemone	1	Est Mar
<i>Crassostrea gigas</i>	Pacific oyster	1	Est Mar
<i>Boccardella ligerica</i>	Polychaete worm	1	Est Mar
<i>Hypostomus plecostomus.</i>	Suckermouth catfish, plecostomus	1	FW

**Appendix G – Galveston Bay Invasive Species Risk Assessment
Risk Scores for the 84 Species Ranked According to Individual Risk Assessment Criteria**

Location

Occurrence of invasive species relative to the Galveston Bay 5-county region

Species Name	Common Name	Risk Score	Habitat
<i>Dichanthium aristatum</i>	Angleton bluestem	5	Terr
<i>Corbicula fluminea</i>	Asian clam	5	FW
<i>Aedes albopictus</i>	Asian tiger mosquito	5	Terr
<i>Pomacea canaliculata</i>	Channeled applesnail	5	FW
<i>Ligustrum sinense</i>	Chinese privet	5	Terr
<i>Triadica sebifera</i>	Chinese tallow tree, popcorn tree	5	Terr
<i>Cyperus entrerianus</i>	Deep-rooted sedge	5	Terr
<i>Felis domesticus</i>	Feral cat	5	Terr
<i>Sorghum halepense</i>	Johnsongrass	5	Terr
<i>Dichanthium annulatum</i>	Kleberg bluestem	5	Terr
<i>Myocastor coypus</i>	Nutria	5	Est Mar
<i>Solenopsis invicta</i>	Red imported fire ant	5	Terr
<i>Paspalum urvillei</i>	Vaseygrass	5	Terr
<i>Bothriochloa ischaemum</i> <i>var. songarica</i>	Yellow bluestem, King Ranch bluestem	5	Terr
<i>Apis mellifera scutellata</i>	Africanized honeybee	4	Terr
<i>Alternanthera philoxeroides</i>	Alligatorweed	4	FW
<i>Schinus terebinthifolius</i>	Brazilian Pepper	4	Terr
<i>Wisteria sinensis</i>	Chinese wisteria	4	Terr
<i>Salvinia minima</i>	Common salvinia, water spangles	4	FW
<i>Eichhornia crassipes</i>	Common water hyacinth	4	FW
<i>Colocasia esculenta</i>	Elephant ear, coco yam, Wild Taro	4	Terr
<i>Streptopelia decaocto</i>	Eurasian collared dove	4	Terr
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	4	FW
<i>Sturnus vulgaris</i>	European Starling	4	Terr
<i>Sus scrofa</i>	Feral pig	4	Terr
<i>Coptotermes formosanus</i>	Formosan subterranean termite	4	Terr
<i>Arundo donax</i>	Giant reed, giant cane	4	Terr
<i>Salvinia molesta</i>	Giant salvinia, kariba weed	4	FW
<i>Ctenopharyngodon idella</i>	Grass carp	4	FW
<i>Oreochromis sp.</i>	Hybrid tilapia	4	FW
<i>Hydrilla verticillata</i>	Hydrilla, waterhyme, Florida elodea	4	FW
<i>Lonicera japonica</i>	Japanese honeysuckle, Hall's honeysuckle	4	Terr
<i>Ligustrum japonicum</i>	Japanese ligustrum	4	Terr
<i>Pueraria lobata, Pueraria</i>	Kudzu, Japanese arrowroot	4	Terr

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Location

Occurrence of invasive species relative to the Galveston Bay 5-county region

<i>Montana</i>			
<i>Rosa bracteata</i>	Macartney rose	4	Terr
<i>Rosa multiflora</i>	Multiflora rose	4	Terr
<i>Tamarix ramosissima</i>	Saltcedar, tamarisk	4	Terr
<i>Hypostomus plecostomus.</i>	Suckermouth catfish, plecostomus	4	FW
<i>Pistia stratiotes</i>	Water lettuce	4	FW
<i>Flavivirus sp.</i>	West Nile Virus (WNV)	4	Terr
<i>Gymnodinium sp.</i>	Exotic red tide species	3	Est Mar
<i>Cuscuta japonica</i>	Japanese dodder	3	Terr
<i>Cichlasoma cyanoguttatum</i>	Rio Grande cichlid	3	FW
<i>Zoobotryon verticillatum</i>	Sauerkraut grass	3	Est Mar
<i>Linepithema humile</i>	Argentine ant	2	Terr
<i>Monopterus albus</i>	Asian swamp eel	2	FW
<i>Phyllorhiza punctata</i>	Australian spotted jellyfish	2	Est Mar
<i>Perna perna</i>	Brown mussel, Mexihalo mussel	2	Est Mar
<i>Imperata cylindrica</i>	Cogongrass	2	Terr
<i>Codium fragile tomentosoides</i>	Dead man's fingers	2	Est Mar
<i>Perna viridis</i>	Green mussel	2	Est Mar
<i>Charybdis hellerii</i>	Indo-Pacific swimming crab	2	Est Mar
<i>Melaleuca quinquenervia</i>	Melaleuca, punktree, cajeput, Australian paperback	2	Terr
<i>Astyanax mexicanus</i>	Mexican tetra	2	FW
<i>Channa argus</i>	Northern Snakehead	2	FW
<i>Ceratocystis fagacearum</i>	Oak wilt	2	Terr
<i>Diadumene lineata</i>	Orange-striped sea anemone	2	Est Mar
<i>Cichla ocellaris</i>	Peacock cichlid	2	FW
<i>Drymonema dalmatinum</i>	Peptol jellyfish	2	Est Mar
<i>Boccardella ligerica</i>	Polychaete worm	2	Est Mar
<i>Lythrum salicaria</i>	Purple loosestrife	2	FW
<i>Melanoides tuberculatus</i>	Red-rim melania	2	Est Mar
<i>Cichla temensis</i>	Speckled pavon	2	FW
<i>Blastobasis graminea</i>	Sugarcane borer	2	Terr
<i>Ipomoea aquatica</i>	Water spinach, swamp morning-glory	2	FW
<i>Dreissena polymorpha</i>	Zebra mussel	2	FW
<i>Palaemon africanus</i>	African prawn	1	Est Mar
<i>Didemnum perlucidum</i>	Ascidian	1	Est Mar

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Location

Occurrence of invasive species relative to the Galveston Bay 5-county region

<i>Botryllus niger</i>	Ascidian	1	Est Mar
<i>Botryllus schlosseri</i>	Ascidian	1	Est Mar
<i>Anoplophora glabripennis</i>	Asian long-horned beetle	1	Terr
<i>Hemigrapsus sanguineus</i>	Asian shore crab	1	Est Mar
<i>Litopenaeus stylirostris</i>	Blue shrimp	1	Est Mar
<i>Caulerpa taxifolia</i>	Caulerpa seaweed	1	Est Mar
<i>Eriocheir sinensis</i>	Chinese mitten crab	1	Est Mar
<i>Crassostrea ariakensis</i>	Chinese river oyster	1	Est Mar
<i>Carcinus Maenas</i>	European green crab	1	Est Mar
<i>Cichla monoculus</i>	Fire-belly peacock cichlid	1	FW
<i>Heterosigma akashiwo</i>	Golden-brown micro-alga	1	Est Mar
<i>Carcinus aestuarii</i>	Mediterranean green crab	1	Est Mar
<i>Crassostrea gigas</i>	Pacific oyster	1	Est Mar
<i>Litopenaeus vannamei</i>	Pacific white shrimp	1	Est Mar
<i>Rapana venosa</i>	Veined rapa whelk	1	Est Mar
<i>Daphnia lumholtzi</i>	Water flea	1	FW

**Appendix G – Galveston Bay Invasive Species Risk Assessment
Risk Scores for the 84 Species Ranked According to Individual Risk Assessment Criteria**

Immediacy

Expected time until occurrence of invasive in the Galveston Bay 5-county region

Species Name	Common Name	Risk Score	Habitat
<i>Apis mellifera scutellata</i>	Africanized honeybee	5	Terr
<i>Alternanthera philoxeroides</i>	Alligatorweed	5	FW
<i>Dichanthium aristatum</i>	Angleton bluestem	5	Terr
<i>Corbicula fluminea</i>	Asian clam	5	FW
<i>Aedes albopictus</i>	Asian tiger mosquito	5	Terr
<i>Schinus terebinthifolius</i>	Brazilian Pepper	5	Terr
<i>Pomacea canaliculata</i>	Channeled applesnail	5	FW
<i>Wisteria sinensis</i>	Chinese wisteria	5	Terr
<i>Ligustrum sinense</i>	Chinese privet	5	Terr
<i>Triadica sebifera</i>	Chinese tallow tree, popcorn tree	5	Terr
<i>Salvinia minima</i>	Common salvinia, water spangles	5	FW
<i>Eichhornia crassipes</i>	Common water hyacinth	5	FW
<i>Cyperus entrerianus</i>	Deep-rooted sedge	5	Terr
<i>Colocasia esculenta</i>	Elephant ear, coco yam, Wild Taro	5	Terr
<i>Streptopelia decaocto</i>	Eurasian collared dove	5	Terr
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	5	FW
<i>Sturnus vulgaris</i>	European Starling	5	Terr
<i>Gymnodinium sp.</i>	Exotic red tide species	5	Est Mar
<i>Felis domesticus</i>	Feral cat	5	Terr
<i>Sus scrofa</i>	Feral pig	5	Terr
<i>Coptotermes formosanus</i>	Formosan subterranean termite	5	Terr
<i>Arundo donax</i>	Giant reed, giant cane	5	Terr
<i>Salvinia molesta</i>	Giant salvinia, kariba weed	5	FW
<i>Ctenopharyngodon idella</i>	Grass carp	5	FW
<i>Oreochromis sp.</i>	Hybrid tilapia	5	FW
<i>Hydrilla verticillata</i>	Hydrilla, waterhyme, Florida elodea	5	FW
<i>Cuscuta japonica</i>	Japanese dodder	5	Terr
<i>Lonicera japonica</i>	Japanese honeysuckle, Hall's honeysuckle	5	Terr
<i>Ligustrum japonicum</i>	Japanese ligustrum	5	Terr
<i>Sorghum halepense</i>	Johnsongrass	5	Terr
<i>Dichanthium annulatum</i>	Kleberg bluestem	5	Terr
<i>Pueraria lobata, Pueraria Montana</i>	Kudzu, Japanese arrowroot	5	Terr
<i>Rosa bracteata</i>	Macartney rose	5	Terr
<i>Rosa multiflora</i>	Multiflora rose	5	Terr

**Appendix G – Galveston Bay Invasive Species Risk Assessment
Risk Scores for the 84 Species Ranked According to Individual Risk Assessment Criteria**

Immediacy

Expected time until occurrence of invasive in the Galveston Bay 5-county region

<i>Myocastor coypus</i>	Nutria	5	Est Mar
<i>Solenopsis invicta</i>	Red imported fire ant	5	Terr
<i>Cichlasoma cyanoguttatum</i>	Rio Grande cichlid	5	FW
<i>Tamarix ramosissima</i>	Saltcedar, tamarisk	5	Terr
<i>Zoobotryon verticillatum</i>	Sauerkraut grass	5	Est Mar
<i>Hypostomus plecostomus.</i>	Suckermouth catfish, plecostomus	5	FW
<i>Paspalum urvillei</i>	Vaseygrass	5	Terr
<i>Pistia stratiotes</i>	Water lettuce	5	FW
<i>Flavivirus sp.</i>	West Nile Virus (WNV)	5	Terr
<i>Bothriochloa ischaemum var. songarica</i>	Yellow bluestem, King Ranch bluestem	5	Terr
<i>Monopterus albus</i>	Asian swamp eel	4	FW
<i>Phyllorhiza punctata</i>	Australian spotted jellyfish	4	Est Mar
<i>Perna perna</i>	Brown mussel, Mexihalo mussel	4	Est Mar
<i>Channa argus</i>	Northern Snakehead	4	FW
<i>Lythrum salicaria</i>	Purple loosestrife	4	FW
<i>Ipomoea aquatica</i>	Water spinach, swamp morning-glory	4	FW
<i>Linepithema humile</i>	Argentine ant	3	Terr
<i>Eriocheir sinensis</i>	Chinese mitten crab	3	Est Mar
<i>Imperata cylindrica</i>	Cogongrass	3	Terr
<i>Carcinus Maenas</i>	European green crab	3	Est Mar
<i>Carcinus aestuarii</i>	Mediterranean green crab	3	Est Mar
<i>Diadumene lineata</i>	Orange-striped sea anemone	3	Est Mar
<i>Litopenaeus vannamei</i>	Pacific white shrimp	3	Est Mar
<i>Boccardella ligerica</i>	Polychaete worm	3	Est Mar
<i>Blastobasis graminea</i>	Sugarcane borer	3	Terr
<i>Rapana venosa</i>	Veined rapa whelk	3	Est Mar
<i>Dreissena polymorpha</i>	Zebra mussel	3	FW
<i>Hemigrapsus sanguineus</i>	Asian shore crab	2	Est Mar
<i>Litopenaeus stylirostris</i>	Blue shrimp	2	Est Mar
<i>Codium fragile tomentosoides</i>	Dead man's fingers	2	Est Mar
<i>Heterosigma akashiwo</i>	Golden-brown micro-alga	2	Est Mar
<i>Perna viridis</i>	Green mussel	2	Est Mar
<i>Charybdis hellerii</i>	Indo-Pacific swimming crab	2	Est Mar
<i>Melaleuca quinquenervia</i>	Melaleuca, punktree, cajeput, Australian paperback	2	Terr
<i>Astyanax mexicanus</i>	Mexican tetra	2	FW
<i>Drymonema dalmatinum</i>	Peptol jellyfish	2	Est Mar

**Appendix G – Galveston Bay Invasive Species Risk Assessment
Risk Scores for the 84 Species Ranked According to Individual Risk Assessment Criteria**

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Immediacy

Expected time until occurrence of invasive in the Galveston Bay 5-county region

<i>Melanoides tuberculatus</i>	Red-rim melania	2	Est Mar
<i>Daphnia lumholtzi</i>	Water flea	2	FW
<i>Palaemon africanus</i>	African prawn	1	Est Mar
<i>Didemnum perlucidum</i>	Ascidian	1	Est Mar
<i>Botryllus niger</i>	Ascidian	1	Est Mar
<i>Botryllus schlosseri</i>	Ascidian	1	Est Mar
<i>Anoplophora glabripennis</i>	Asian long-horned beetle	1	Terr
<i>Caulerpa taxifolia</i>	Caulerpa seaweed	1	Est Mar
<i>Crassostrea ariakensis</i>	Chinese river oyster	1	Est Mar
<i>Cichla monoculus</i>	Fire-belly peacock cichlid	1	FW
<i>Ceratocystis fagacearum</i>	Oak wilt	1	Terr
<i>Crassostrea gigas</i>	Pacific oyster	1	Est Mar
<i>Cichla ocellaris</i>	Peacock cichlid	1	FW
<i>Cichla temensis</i>	Speckled pavon	1	FW

**Appendix G – Galveston Bay Invasive Species Risk Assessment
Risk Scores for the 84 Species Ranked According to Individual Risk Assessment Criteria**

Irreversibility

Ability of natural and modified ecosystems to recover from damage after control/eradication of the invasive

Species Name	Common Name	Risk Score	Habitat
<i>Didemnum perlucidum</i>	Ascidian	5	Est Mar
<i>Botryllus niger</i>	Ascidian	5	Est Mar
<i>Botryllus schlosseri</i>	Ascidian	5	Est Mar
<i>Codium fragile tomentosoides</i>	Dead man's fingers	5	Est Mar
<i>Myocastor coypus</i>	Nutria	5	Est Mar
<i>Drymonema dalmatinum</i>	Peptol jellyfish	5	Est Mar
<i>Boccardella ligerica</i>	Polychaete worm	5	Est Mar
<i>Daphnia lumholtzi</i>	Water flea	5	FW
<i>Dreissena polymorpha</i>	Zebra mussel	5	FW
<i>Palaemon africanus</i>	African prawn	4	Est Mar
<i>Apis mellifera scutellata</i>	Africanized honeybee	4	Terr
<i>Eriocheir sinensis</i>	Chinese mitten crab	4	Est Mar
<i>Crassostrea ariakensis</i>	Chinese river oyster	4	Est Mar
<i>Carcinus Maenas</i>	European green crab	4	Est Mar
<i>Charybdis hellerii</i>	Indo-Pacific swimming crab	4	Est Mar
<i>Cuscuta japonica</i>	Japanese dodder	4	Terr
<i>Carcinus aestuarii</i>	Mediterranean green crab	4	Est Mar
<i>Ceratocystis fagacearum</i>	Oak wilt	4	Terr
<i>Diadumene lineata</i>	Orange-striped sea anemone	4	Est Mar
<i>Crassostrea gigas</i>	Pacific oyster	4	Est Mar
<i>Melanoides tuberculatus</i>	Red-rim melania	4	Est Mar
<i>Anoplophora glabripennis</i>	Asian long-horned beetle	3	Terr
<i>Phyllorhiza punctata</i>	Australian spotted jellyfish	3	Est Mar
<i>Schinus terebinthifolius</i>	Brazilian Pepper	3	Terr
<i>Wisteria sinensis</i>	Chinese wisteria	3	Terr
<i>Ligustrum sinense</i>	Chinese privet	3	Terr
<i>Triadica sebifera</i>	Chinese tallow tree, popcorn tree	3	Terr
<i>Ligustrum japonicum</i>	Japanese ligustrum	3	Terr
<i>Rosa bracteata</i>	Macartney rose	3	Terr
<i>Melaleuca quinquenervia</i>	Melaleuca, punktree, cajeput, Australian paperback	3	Terr
<i>Rosa multiflora</i>	Multiflora rose	3	Terr
<i>Channa argus</i>	Northern Snakehead	3	FW
<i>Solenopsis invicta</i>	Red imported fire ant	3	Terr

**Appendix G – Galveston Bay Invasive Species Risk Assessment
Risk Scores for the 84 Species Ranked According to Individual Risk Assessment Criteria**

Irreversibility

Ability of natural and modified ecosystems to recover from damage after control/eradication of the invasive

<i>Tamarix ramosissima</i>	Saltcedar, tamarisk	3	Terr
<i>Blastobasis graminea</i>	Sugarcane borer	3	Terr
<i>Rapana venosa</i>	Veined rapa whelk	3	Est Mar
<i>Dichanthium aristatum</i>	Angleton bluestem	2	Terr
<i>Linepithema humile</i>	Argentine ant	2	Terr
<i>Corbicula fluminea</i>	Asian clam	2	FW
<i>Hemigrapsus sanguineus</i>	Asian shore crab	2	Est Mar
<i>Monopterus albus</i>	Asian swamp eel	2	FW
<i>Litopenaeus stylirostris</i>	Blue shrimp	2	Est Mar
<i>Perna perna</i>	Brown mussel, Mexihalo mussel	2	Est Mar
<i>Caulerpa taxifolia</i>	Caulerpa seaweed	2	Est Mar
<i>Pomacea canaliculata</i>	Channeled applesnail	2	FW
<i>Imperata cylindrica</i>	Cogongrass	2	Terr
<i>Salvinia minima</i>	Common salvinia, water spangles	2	FW
<i>Eichhornia crassipes</i>	Common water hyacinth	2	FW
<i>Cyperus entrerianus</i>	Deep-rooted sedge	2	Terr
<i>Colocasia esculenta</i>	Elephant ear, coco yam, Wild Taro	2	Terr
<i>Streptopelia decaocto</i>	Eurasian collared dove	2	Terr
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	2	FW
<i>Sturnus vulgaris</i>	European Starling	2	Terr
<i>Gymnodinium sp.</i>	Exotic red tide species	2	Est Mar
<i>Felis domesticus</i>	Feral cat	2	Terr
<i>Sus scrofa</i>	Feral pig	2	Terr
<i>Cichla monoculus</i>	Fire-belly peacock cichlid	2	FW
<i>Coptotermes formosanus</i>	Formosan subterranean termite	2	Terr
<i>Arundo donax</i>	Giant reed, giant cane	2	Terr
<i>Salvinia molesta</i>	Giant salvinia, kariba weed	2	FW
<i>Ctenopharyngodon idella</i>	Grass carp	2	FW
<i>Perna viridis</i>	Green mussel	2	Est Mar
<i>Oreochromis sp.</i>	Hybrid tilapia	2	FW
<i>Hydrilla verticillata</i>	Hydrilla, waterhyme, Florida elodea	2	FW
<i>Lonicera japonica</i>	Japanese honeysuckle, Hall's honeysuckle	2	Terr
<i>Sorghum halepense</i>	Johnsongrass	2	Terr
<i>Dichanthium annulatum</i>	Kleberg bluestem	2	Terr
<i>Pueraria lobata, Pueraria Montana</i>	Kudzu, Japanese arrowroot	2	Terr

**Appendix G – Galveston Bay Invasive Species Risk Assessment
Risk Scores for the 84 Species Ranked According to Individual Risk Assessment Criteria**

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Irreversibility

Ability of natural and modified ecosystems to recover from damage after control/eradication of the invasive

<i>Litopenaeus vannamei</i>	Pacific white shrimp	2	Est Mar
<i>Cichla ocellaris</i>	Peacock cichlid	2	FW
<i>Lythrum salicaria</i>	Purple loosestrife	2	FW
<i>Cichlasoma cyanoguttatum</i>	Rio Grande cichlid	2	FW
<i>Cichla temensis</i>	Speckled pavon	2	FW
<i>Paspalum urvillei</i>	Vaseygrass	2	Terr
<i>Pistia stratiotes</i>	Water lettuce	2	FW
<i>Ipomoea aquatica</i>	Water spinach, swamp morning-glory	2	FW
<i>Bothriochloa ischaemum</i> <i>var. songarica</i>	Yellow bluestem, King Ranch bluestem	2	Terr
<i>Alternanthera philoxeroides</i>	Alligatorweed	1	FW
<i>Aedes albopictus</i>	Asian tiger mosquito	1	Terr
<i>Heterosigma akashiwo</i>	Golden-brown micro-alga	1	Est Mar
<i>Astyanax mexicanus</i>	Mexican tetra	1	FW
<i>Zoobotryon verticillatum</i>	Sauerkraut grass	1	Est Mar
<i>Hypostomus plecostomus.</i>	Suckermouth catfish, plecostomus	1	FW
<i>Flavivirus sp.</i>	West Nile Virus (WNV)	1	Terr

**Appendix G – Galveston Bay Invasive Species Risk Assessment
Risk Scores for the 84 Species Ranked According to Individual Risk Assessment Criteria**

Impacts to Human Uses

Potential impact of invasive on human uses of Galveston Bay watershed

Species Name	Common Name	Risk Score	Habitat
<i>Caulerpa taxifolia</i>	Caulerpa seaweed	5	Est Mar
<i>Dreissena polymorpha</i>	Zebra mussel	5	FW
<i>Eichhornia crassipes</i>	Common water hyacinth	5	FW
<i>Eriocheir sinensis</i>	Chinese mitten crab	5	Est Mar
<i>Hydrilla verticillata</i>	Hydrilla, waterhyme, Florida elodea	5	FW
<i>Salvinia molesta</i>	Giant salvinia, kariba weed	5	FW
<i>Carcinus aestuarii</i>	Mediterranean green crab	4	Est Mar
<i>Carcinus Maenas</i>	European green crab	4	Est Mar
<i>Ceratocystis fagacearum</i>	Oak wilt	4	Terr
<i>Flavivirus sp.</i>	West Nile Virus (WNV)	4	Terr
<i>Ipomoea aquatica</i>	Water spinach, swamp morning-glory	4	FW
<i>Pistia stratiotes</i>	Water lettuce	4	FW
<i>Pomacea canaliculata</i>	Channeled applesnail	4	FW
<i>Salvinia minima</i>	Common salvinia, water spangles	4	FW
<i>Schinus terebinthifolius</i>	Brazilian Pepper	4	Terr
<i>Solenopsis invicta</i>	Red imported fire ant	4	Terr
<i>Triadica sebifera</i>	Chinese tallow tree, popcorn tree	4	Terr
<i>Aedes albopictus</i>	Asian tiger mosquito	3	Terr
<i>Apis mellifera scutellata</i>	Africanized honeybee	3	Terr
<i>Blastobasis graminea</i>	Sugarcane borer	3	Terr
<i>Channa argus</i>	Northern Snakehead	3	FW
<i>Cichla monoculus</i>	Fire-belly peacock cichlid	3	FW
<i>Cichla ocellaris</i>	Peacock cichlid	3	FW
<i>Cichla temensis</i>	Speckled pavon	3	FW
<i>Ctenopharyngodon idella</i>	Grass carp	3	FW
<i>Gymnodinium sp.</i>	Exotic red tide species	3	Est Mar
<i>Hemigrapsus sanguineus</i>	Asian shore crab	3	Est Mar
<i>Heterosigma akashiwo</i>	Golden-brown micro-alga	3	Est Mar
<i>Litopenaeus stylirostris</i>	Blue shrimp	3	Est Mar
<i>Litopenaeus vannamei</i>	Pacific white shrimp	3	Est Mar
<i>Lythrum salicaria</i>	Purple loosestrife	3	FW
<i>Melanoides tuberculatus</i>	Red-rim melania	3	Est Mar
<i>Monopterus albus</i>	Asian swamp eel	3	FW
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	3	FW
<i>Perna perna</i>	Brown mussel, Mexihalo mussel	3	Est Mar

**Appendix G – Galveston Bay Invasive Species Risk Assessment
Risk Scores for the 84 Species Ranked According to Individual Risk Assessment Criteria**

Impacts to Human Uses

Potential impact of invasive on human uses of Galveston Bay watershed

<i>Perna viridis</i>	Green mussel	3	Est Mar
<i>Phyllorhiza punctata</i>	Australian spotted jellyfish	3	Est Mar
<i>Rapana venosa</i>	Veined rapa whelk	3	Est Mar
<i>Tamarix ramosissima</i>	Saltcedar, tamarisk	3	Terr
<i>Zoobotryon verticillatum</i>	Sauerkraut grass	3	Est Mar
<i>Alternanthera philoxeroides</i>	Alligatorweed	2	FW
<i>Arundo donax</i>	Giant reed, giant cane	2	Terr
<i>Astyanax mexicanus</i>	Mexican tetra	2	FW
<i>Bothriochloa ischaemum var. songarica</i>	Yellow bluestem, King Ranch bluestem	2	Terr
<i>Colocasia esculenta</i>	Elephant ear, coco yam, Wild Taro	2	Terr
<i>Coptotermes formosanus</i>	Formosan subterranean termite	2	Terr
<i>Crassostrea gigas</i>	Pacific oyster	2	Est Mar
<i>Cuscuta japonica</i>	Japanese dodder	2	Terr
<i>Cyperus entrerianus</i>	Deep-rooted sedge	2	Terr
<i>Dichanthium annulatum</i>	Kleberg bluestem	2	Terr
<i>Dichanthium aristatum</i>	Angleton bluestem	2	Terr
<i>Drymonema dalmatinum</i>	Peptol jellyfish	2	Est Mar
<i>Felis domesticus</i>	Feral cat	2	Terr
<i>Hypostomus plecostomus.</i>	Suckermouth catfish, plecostomus	2	FW
<i>Imperata cylindrica</i>	Cogongrass	2	Terr
<i>Ligustrum japonicum</i>	Japanese ligustrum	2	Terr
<i>Ligustrum sinense</i>	Chinese privet	2	Terr
<i>Linepithema humile</i>	Argentine ant	2	Terr
<i>Lonicera japonica</i>	Japanese honeysuckle, Hall's honeysuckle	2	Terr
<i>Melaleuca quinquenervia</i>	Melaleuca, punktree, cajeput, Australian paperback	2	Terr
<i>Myocastor coypus</i>	Nutria	2	Est Mar
<i>Oreochromis sp.</i>	Hybrid tilapia	2	FW
<i>Paspalum urvillei</i>	Vaseygrass	2	Terr
<i>Pueraria lobata, Pueraria Montana</i>	Kudzu, Japanese arrowroot	2	Terr
<i>Rosa bracteata</i>	Macartney rose	2	Terr
<i>Rosa multiflora</i>	Multiflora rose	2	Terr
<i>Sorghum halepense</i>	Johnsongrass	2	Terr
<i>Streptopelia decaocto</i>	Eurasian collared dove	2	Terr
<i>Sturnus vulgaris</i>	European Starling	2	Terr
<i>Sus scrofa</i>	Feral pig	2	Terr

**Appendix G – Galveston Bay Invasive Species Risk Assessment
Risk Scores for the 84 Species Ranked According to Individual Risk Assessment Criteria**

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Impacts to Human Uses

Potential impact of invasive on human uses of Galveston Bay watershed

<i>Anoplophora glabripennis</i>	Asian long-horned beetle	1	Terr
<i>Boccardella ligERICA</i>	Polychaete worm	1	Est Mar
<i>Botryllus niger</i>	Ascidian	1	Est Mar
<i>Botryllus schlosseri</i>	Ascidian	1	Est Mar
<i>Charybdis hellerii</i>	Indo-Pacific swimming crab	1	Est Mar
<i>Cichlasoma cyanoguttatum</i>	Rio Grande cichlid	1	FW
<i>Codium fragile tomentosoides</i>	Dead man's fingers	1	Est Mar
<i>Corbicula fluminea</i>	Asian clam	1	FW
<i>Crassostrea ariakensis</i>	Chinese river oyster	1	Est Mar
<i>Daphnia lumholtzi</i>	Water flea	1	FW
<i>Diadumene lineata</i>	Orange-striped sea anemone	1	Est Mar
<i>Didemnum perlucidum</i>	Ascidian	1	Est Mar
<i>Palaemon africanus</i>	African prawn	1	Est Mar
<i>Wisteria sinensis</i>	Chinese wisteria	1	Terr