

**CHAPTER 11. BENTHIC MACROINVERTEBRATES, APPENDIX 11.A DESCRIPTION OF  
BENTHIC COMMUNITIES OF THE ST. JOHNS RIVER MAINSTEM**

by

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## APPENDIX 11.A

DESCRIPTION OF BENTHIC COMMUNITIES OF THE ST. JOHNS RIVER MAINSTEM  
(references cited are listed in the “Literature Cited” section in the body of the chapter)**Segment 8**

This segment is located in the Upper St. Johns River Basin (USJRB) and major features include the river mainstem and Lakes Washington, Winder, and Poinsett. A very limited amount of benthic sampling has been conducted in this reach. Benthic communities in the major lakes were sampled once in 2001 by Stetson University investigators (Work and Gibbs Undated Report) with petite ponar grab at two locations in each lake. Communities in Lakes Winder and Poinsett were dominated (both abundance and biomass) by oligochaetes and midge larvae. The most abundant individual species were the chironomid midges *Chironomus* spp. and the phantom midge *Chaoborus punctipennis*. Oligochaetes and chironomids were also abundant in Lake Washington but were lower in relative abundance. Unionids (freshwater “mussels”) comprised a large fraction of the biomass in Lake Washington due to their size and were also abundant in that lake, along with the exotic Asian clam, *Corbicula fluminea*. The highest overall benthic invertebrate density and species richness was measured in Lakes Poinsett and Winder; the highest biomass was in Lake Washington due to the presence of mussels. Bottom dissolved oxygen (DO) appeared to influence density, biomass and species richness and conductivity influenced density in all lakes. SJRWMD sampled the benthic community in Lake Washington once in 1999 (Water and Air Research, Inc. 2000) with petite ponar grab at one location. Results were similar to those of the Stetson study; most abundant species were the mussel *Elliptio buckleyi*, the Asian clam *C. fluminea*, various chironomid midge larvae and the mayfly *Hexagenia limbata*. DeMort (1991) stated that the euryhaline estuarine crab *Rhithropanopeus harrisii* was collected in Lake Poinsett, but it appears she has never published these results anywhere.

In the river mainstem, the Florida Department of Environmental Protection (FDEP) conducted some benthic community monitoring in the St. Johns River above Lake Washington between 1974-1982 on a roughly quarterly schedule and once in 1992. They used multiple gear types (petite ponar grab, Hester-Dendy artificial substrate, and dip net along the shoreline). Their ponar samples are most comparable to the lake sampling. Dominant species by density were the Asian clam, the amphipod *Gammarus* nr. *tigrinus*, oligochaetes and chironomid midge larvae. On the Hester-Dendy samplers, most abundant species were the amphipod *Hyaella azteca* group and the caddisfly *Cyrnellus fraternus*. FDEP conducted a limited amount of qualitative dip net sampling in the river mainstem below Lake Poinsett in 2002. The taxa collected included aquatic beetles, crayfish, the freshwater grass shrimp *Palaemonetes paludosus*, mollusks, oligochaetes and chironomid midge larvae.

**Segment 7**

This segment is also located in the USJRB and major features include the river mainstem and the area known as Puzzle Lake. Almost no benthic community samples have been collected in this segment. SJRWMD sampled in the river mainstem at State Road 50 once in 1999 with petite ponar grab (Water and Air Research, Inc. 2000). The only taxa collected were the oligochaete worm *Limnodrilus hoffmeisteri* and the mussel *E. buckleyi*. DeMort (1991) indicated that the

euryhaline crab *R. harrisii* was abundant in the Puzzle Lake area but these results are unpublished. Beds of unionid mussels are common in this reach (R. A. Mattson, pers. observation).

### **Segment 6**

This segment is located in the Middle St. Johns River Basin (MSJRB) and major features include the river mainstem and Lakes Harney and Monroe. This segment is influenced by groundwater discharge via springs and spring run streams; primarily the Wekiva River, Gemini Springs, and Green Springs. Some benthic community sampling has been conducted in Lake Monroe by the Institute of Food and Agricultural Sciences, University of Florida (Ali 1989) and SJRWMD (Water and Air Research, Inc. 2000). Ali (1989) used an Eckman dredge and conducted sampling from 1979-1987 at 16 stations (sampling schedule varied from weekly to quarterly) and the SJRWMD effort used petite ponar grab and was conducted once in 1999 at 7 stations in the lake. Ali (1989) primarily focused on chironomid midge populations in Lake Monroe. A total of 30 species of midges were collected from the benthic community of the lake. The most abundant species were *Glyptotendipes paripes*, *Chironomus* spp. (primarily *C. crassicaudatus*) and the midge tribe Tanypodinae. *G. paripes* and *C. crassicaudatus* are regarded as “nuisance” midge taxa due to their propensity to emerge in huge swarms of adults in eutrophic lake systems such as Lake Monroe, causing aesthetic problems for lakefront homes and businesses. SJRWMD sampling in Lake Monroe indicated that the most abundant species were the phantom midge *C. punctipennis*, the chironomid *Coelotanypus tricolor*, leeches in the genus *Helobdella* and the oligochaete *L. hoffmeisteri*.

Almost no benthic sampling has been conducted in the river mainstem in this segment or in Lake Harney. SJRWMD sampled the river mainstem once in 1999 with petite ponar grab at the US 17-92 bridge crossing (at the Lake Monroe outlet) and upstream at the Lake Jesup outlet, between Lakes Monroe and Harney (Water and Air Research, Inc. 2000). The most abundant species at US 17-92 were the midges *C. crassicaudatus* and *Procladius* sp. The most abundant species at the Lake Jesup outlet were the oligochaete *L. hoffmeisteri* and the euryhaline estuarine isopod *Cyathura polita*. Several of us (K. Cummins, R. Merritt, and R. Mattson) conducted one-time qualitative surveys of invertebrates in the river mainstem near the Lake Jesup outlet and downstream of the Wekiva River confluence in June 2008. At the Lake Jesup outlet the crab *R. harrisii* was collected, along with the grass shrimp *P. paludosus*, the hemipteran *Ranatra* sp. and snails. In beds of the macrophyte *Nuphar advena*, larvae of a large aquatic lepidopteran (*Bellura* sp.) were collected. This caterpillar bores into the petiole of the *Nuphar* leaves and feeds on the plant tissue. At the river mainstem downstream of the Wekiva confluence, *R. harrisii*, *Bellura* sp. and unidentified amphipods were collected.

Preliminary surveys of benthic communities in shallow shoreline areas of Lake Harney were conducted in March 2009 (R. A. Mattson, pers. observations). Qualitative dip net sampling collected unidentified amphipods (probably *H. azteca* group), aquatic beetles, the shrimp *P. paludosus*, chironomid midge larvae, the snail *Viviparus georgianus*, and the Asian clam. Of interest was the finding of *Elliptio monroensis* in the lake, a unionid endemic to the St. Johns River drainage (J. Williams, Fla. Fish and Wildlife Conservation Commission, pers. comm.), along with *E. buckleyi* and other unidentified mussel taxa occurring in beds in shallow unvegetated areas.

### **Segment 5**

This segment is located in the Lake George Basin (LGB). Major features include the river mainstem and Lakes Beresford, Woodruff and Dexter. This segment is affected by groundwater discharge from several large springs or spring run streams, including Volusia Blue Spring, DeLeon Spring, and Alexander Spring Creek. As with other reaches in the upper and middle St. Johns River, minimal benthic community sampling has been conducted. FDEP sampled in the river mainstem at State Road 40 (“near Astor” location) from 1979-1983 on a roughly quarterly schedule with petite ponar grab. The most abundant species were the oligochaete *L. hoffmeisteri*, various chironomid midge larvae, two exotic mollusks (the snail *Melanoides tuberculata* and the Asian clam) and the euryhaline estuarine amphipod *Melita nitida*. FDEP also sampled at the State Road 40 site with Hester-Dendy samplers sporadically from 1975-1992. The most abundant taxa were the chironomid midges *Dicrotendipes* spp. and *Rheotanytarsus exiguus*, the caddisfly *Cyrnellus* sp., and the amphipods *Gammarus* sp. and *Hyalella azteca* group. The euryhaline estuarine amphipod *Corophium* sp. was also collected on the samplers. SJRWMD sampled once at the State Road 40 location and upstream at State Road 44 (“near DeLand”) in 1999 with petite ponar grab (Water and Air Research, Inc. 2000). The species composition found by SJRWMD was similar to that found by FDEP; the most abundant species at both locations were the oligochaete *L. hoffmeisteri*, the chironomid *C. crassicaudatus*, and other species of chironomid midge larvae.

SJRWMD sampled Lake Woodruff once in in 1999 with a petite ponar grab (Water and Air Research, Inc. 2000). Three taxa were collected, the phantom midge *C. punctipennis*, the chironomid *C. tricolor*, and the oligochaete *L. hoffmeisteri*.

### **Segment 4**

This segment is located in the LGB and major features are the river mainstem and Lake George. This segment is influenced by groundwater discharge via Juniper Creek, Silver Glen Springs, Salt Springs, and Croaker Hole Spring (a spring located in the bed of the river mainstem at the downstream end of Lake George). Some benthic sampling has been conducted in this segment. SJRWMD sampled once in 1999 at 10 locations in Lake George (Water and Air Research, Inc. 2000). The most abundant benthic invertebrate species were the chironomid midge *C. tricolor*, the phantom midge *C. punctipennis*, and the oligochaete *L. hoffmeisteri*. Several estuarine taxa were collected or have been observed in Lake George, including the mysid *Americamysis almyra*, amphipods (*Melita* cf. *intermedia* and *Hartmanodes* [*Monoculodes?*] *neyi*), and blue crab, *Callinectes sapidus*.

In the river mainstem SJRWMD sampled a site at the Lake George outlet (St. Johns River at Channel Marker 72) once in 1999 (Water and Air Research, Inc. 2000). The most abundant taxa were the chironomid midges *C. crassicaudatus* and *Coelotanypus concinnus*, the oligochaete *L. hoffmeisteri*, and the estuarine isopod *C. polita*. A longer-term site was sampled quarterly by SJRWMD with petite ponar grab, Hester-Dendy samplers, and benthic sleds from 1993-95 near Georgetown, in the river mainstem downstream of the Lake George outlet (Cichra and Adicks 1998). Most abundant invertebrate species at this site (all gear types combined) were the oligochaete *L. hoffmeisteri*, the amphipod *Gammarus* nr. *tigrinus*, the mysid *A. almyra*, various chironomid midges (primarily *Coelotanypus* cf. *scapularis*, *Glyptotendipes lobiferus*, and

*Tanytarsus* spp.), the mayfly *Caenis diminuta*, and the hydrobiid snail *Hyalopyrgus aequicostatus*.

### **Segment 3**

This segment is located in the Lower St. Johns River Basin (LSJRB) and may be considered the tidal freshwater/upper oligohaline reach of the St. Johns River estuary. FDEP sampled the following sites (ordered upstream-downstream) in this segment on a semi-regular basis with various gear types; mostly petite ponar and Hester-Dendy samplers (Data provided by L. Banks, Fla. Dept. of Environmental Protection):

- US 17 bridge at Palatka; sporadically from Oct 1973-Sep 1982
- At Picolata; sporadically from Jul 1975-Jun 1996
- State Road 16 bridge (Green Cove Springs); sporadically from Dec 1983-Sep 1986

Additionally, FDEP sampled the benthic community at other sites near these on a supplemental basis one or more times.

SJRWMD collected benthic samples quarterly between 1993-95 with petite ponar, Hester-Dendy, and benthic sled at the following locations (ordered upstream-downstream) in Segment 3 (Cichra and Adicks 1998; Mason 1998):

- Buffalo Bluff
- At Palatka
- Near Federal Point
- At Picolata
- Near Green Cove Springs

This SJRWMD data set included benthic data collected with petite ponar grab, Hester-Dendy sampler, and benthic sled by Mason (1998) at the same locations.

Overall, sites in this segment at and upstream of Picolata are generally dominated by freshwater taxa, primarily oligochaetes, mollusks, and aquatic insects, with some euryhaline estuarine species which characteristically invade far upriver (e.g., the isopod *C. polita*, certain amphipods, the mysid *A. almyra*, and *C. sapidus*). Downstream at Green Cove Springs/State Rd. 16, the benthic community begins to display a more estuarine composition, with estuarine amphipods, isopods, mysids, mollusks and crabs exhibiting higher relative abundance in the community, along with the continued occurrence of freshwater taxa (oligochaetes, mollusks and aquatic insects). Aquatic insects tolerant of some salinity are present at this site.

### **Segment 2**

This segment is located in the LSJRB and may be considered the lower oligohaline/upper mesohaline reach of the estuary. FDEP sampled the following site in this segment on a semi-

regular basis with petite ponar grab (Data provided by L. Banks, Fla. Dept. of Environmental Protection):

- Ortega River confluence/Jacksonville NAS region; sporadically from Sep 1977-Sep 1983

Additionally, FDEP sampled the benthic community at other sites near these on a supplemental basis one or more times.

SJRWMD collected benthic samples quarterly between 1993-95 with petite ponar, Hester-Dendy, and benthic sled at the following locations (ordered upstream-downstream) in Segment 2 (Cichra and Adicks 1998; Mason 1998):

- Near Orange Park
- Above Jacksonville (near Jacksonville NAS)

This SJRWMD data set included benthic data collected with petite ponar grab, Hester-Dendy sampler, and benthic sled by Mason (1998) at the same locations.

The benthic community at these sites exhibits a definite estuarine character, with various polychaete species (*Streblospio benedicti*, *Marenzelleria* [= *Scolecoplepides*] *viridis*), estuarine amphipods (*Corophium* spp. and *Hartmanodes* [*Monoculodes*?] *neyi*), mysids, decapods (*R. harrisii* and estuarine species of *Palaemonetes*), and estuarine mollusks (the clams *Mytilopsis leucophaeata* and *Rangi cuneata* and the snail *Littoridinops monroensis*) being most abundant. A few species of salt-tolerant aquatic insects are still present at these sites.

### **Segment 1**

This segment is located in the LSJRB and is considered the lower mesohaline/polyhaline reach of the estuary. It ends at the mouth of the river at the Atlantic Ocean. FDEP sampled the following sites (ordered upstream-downstream) in this segment on a semi-regular basis with petite ponar grab (Data provided by L. Banks, Fla. Dept. of Environmental Protection):

- At Main Street bridge; sporadically from Jun 1974-Apr 1982
- Near mouth of the river; sporadically from May 1980-Sep 1986

Additionally, FDEP sampled the benthic community at other sites near these on a supplemental basis one or more times.

The benthic community at these sites exhibits an estuarine/marine character with the most abundant species tolerant of higher salinities, such as clams (*Tellina* spp, *Macoma tenta*), polychaetes (*Capitella capitata*, *Mediomastus californiensis*, *S. benedicti*), estuarine and marine crustaceans and echinoderms.

**LIST OF ACRONYMS/TERMS USED IN BENTHOS LIST**

HABITAT	FW = freshwater ES = estuarine MA = marine
OCCURS IN SPRINGS/RUNS	Does the taxon occur in springs or spring-run streams; Y = yes; blank indicates no or not reported
NOTES	"Formerly" and "synonymous" mean roughly the same thing; mainly that the name has been changed outright or synonymized with another taxon  Exotic and endemics are identified  If the record is questionable, the rationale for this is identified here  SGCN = species of greatest conservation need in the Florida Wildlife Legacy Initiative

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
Porifera			<i>Cliona celata</i>	MA/ES		
			<i>Craniella laminaris</i>	ES		
			<i>Ephydatia</i> sp.	FW	Y	
			<i>Spongilla fragilis</i>	FW		
			<i>Spongilla</i> sp.	FW	Y	
Cnidaria			<i>Actiniaria</i> sp.			
			Campanulariidae sp.			
			<i>Cordylophora lacustris</i>	FW	Y	
			<i>Cordylophora</i> sp.	FW		
			<i>Hydra</i> sp.	FW	Y	
			Plumulariidae sp.			
			<i>Tubularia crocea</i>			
Tubulariidae sp.						
Platyhelminthes			<i>Cura foremanii</i>			
			<i>Dugesia</i> sp.	FW		
			<i>Polycladida</i> sp.			
			<i>Rhynchoscolex</i> sp.	FW		
			<i>Stylochus ellipticus</i>	FW		
Turbellaria sp.	FW					
Nemertea			<i>Amphiporus</i> sp.			
			<i>Cerebratulus lacteus</i>			
			<i>Prostoma rubrum</i>	FW		
			<i>Tetrastemma elegans</i>			
			<i>Tubulanus pellucidus</i>			
Tubulanus sp.						
Mollusca	Gastropoda	Ancylidae	<i>Ferrissia dalli</i>	FW		
			<i>Ferrissia hendersoni</i>	FW		
			<i>Ferrissia</i> sp.	FW	Y	
			<i>Hebetancylus excentricus</i>	FW	Y	
			<i>Laevapex fuscus</i>	FW/ES	Y	
			<i>Laevapex peninsulae</i>	FW	Y	
			<i>Laevapex</i> sp.	FW	Y	
			Ancylidae sp.	FW		
Mollusca	Gastropoda	Littorinidae	<i>Littoraria irrorata</i>	ES		Formerly <i>Littorina irrorata</i>
Mollusca	Gastropoda	Ellobiidae	<i>Melampus bidentatus</i>	ES		
			<i>Melampus coffeus</i>	ES		



Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
Mollusca	Gastropoda	Nassariidae	<i>Ilyanassa obsoleta</i>	ES		
			<i>Nassarius trivittatus</i>	ES		
			<i>Nassarius vibex</i>	ES		
Mollusca	Gastropoda	Hydrobiidae	<i>Amnicola dalli</i>	FW	Y	
			<i>Amnicola</i> sp.	FW	Y	
			<i>Aphaostracon asthenes</i>	FW	Y	Endemic to Volusia Blue Spring
			<i>Aphaostracon monas</i>	FW	Y	Endemic to Wekiwa Spring
			<i>Aphaostracon pachynotus</i>	FW	Y	
			<i>Aphaostracon pycnum</i>	FW	Y	Endemic to Alexander and Silver Glen Springs
			<i>Aphaostracon</i> sp.	FW	Y	Endemic to Middle SJR springs
			<i>Floridobia fraterna</i>	FW/ES		Endemic to SJR drainage
			<i>Floridobia alexander</i>	FW	Y	Endemic to Alexander Sprng
			<i>Floridobia floridana</i>	FW	Y	
			<i>Floridobia parva</i>	FW	Y	Endemic to Volusia Blue Spring
			<i>Floridobia petrifons</i>	FW	Y	Endemic to Rock Spring
			<i>Floridobia ponderosa</i>	FW	Y	Endemic to Sanlando Spring
			<i>Floridobia porterae</i>	FW	Y	Endemic to Green Cove Springs
			<i>Floridobia vanhyningi</i>	FW	Y	Endemic to Seminole Spring, Lake County
			<i>Floridobia wekiwae</i>	FW	Y	Endemic to Wekiwa Spring
			<i>Hyalopyrgus aequicostatus</i>	FW/ES		
			<i>Hyalopyrgus</i> sp.	FW	Y	
			<i>Littoridinops monroensis</i>	ES/FW		
			<i>Littoridinops tenuipes</i>	ES		
<i>Littoridinops</i> sp.	ES/FW					
<i>Notogillia wetherbyi</i>	FW	Y	Disjunct population in SJR drainage			
<i>Pyrgophorus platyrachis</i>	FW	Y				
<i>Spilochlamys gravis</i>	FW	Y	Endemic to SJR drainage			
<i>Tryonia aequicostata</i>	FW	Y	Endemic to SJR drainage			
		Hydrobiidae sp.	FW	Y		
Mollusca	Gastropoda	Viviparidae	<i>Viviparus georgianus</i>	FW	Y	
			<i>Campeloma floridense</i>	FW	Y	Disjunct population in SJR drainage
Mollusca	Gastropoda	Pleuroceridae	<i>Elimia floridensis</i>	FW	Y	Complex of subspecies endemic to SJR drainage
			<i>Elimia vanhyningiana</i>	FW	Y	Endemic to SJR drainage
Mollusca	Gastropoda	Melongenidae	<i>Busycon sinistrum</i>	ES/MA		Formerly <i>B. contrarium</i> (Lightning whelk)
			<i>Melongena corona</i>	ES		
Mollusca	Gastropoda	Planorbidae	<i>Gyraulus parvus</i>	FW	Y	
			<i>Gyraulus</i> sp.	FW	Y	
			<i>Micromenetus dilatatus avus</i>	FW	Y	
			<i>Micromenetus floridensis</i>	FW	Y	
			<i>Micromenetus</i> sp.	FW	Y	

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
			<i>Planorbella duryi</i>	FW	Y	
			<i>Planorbella scalaris</i>	FW/ES	Y	
			<i>Planorbella trivolvis intertexta</i>	FW	Y	
			<i>Planorbella</i> sp.	FW		
Mollusca	Gastropoda	Physidae	<i>Haitia cubensis</i>	FW	Y	Formerly <i>Physella cubensis</i>
			<i>Haitia hendersoni</i>	FW	Y	Formerly <i>Physella hendersoni</i>
			<i>Haitia</i> sp.	FW	Y	
			<i>Physella heterostropha pomila</i>	FW	Y	<i>Haitia pomilla</i> ??
Mollusca	Gastropoda	Ampullaridae	<i>Pomacea paludosa</i>	FW	Y	
			<i>Pomacea canaliculata</i>	FW		Exotic species
Mollusca	Gastropoda	Pomatiopsidae	<i>Pomatiopsis</i> sp. (?)	FW		Questionable - Thompson says only in Apalachicola R.
Mollusca	Gastropoda	Thiaridae	<i>Melanoides tuberculata</i>	FW	Y	Exotic species
			<i>Melanoides turricula</i>	FW	Y	Exotic species
			<i>Tarebia</i> sp. (?)	FW	Y	Exotic species
Mollusca	Gastropoda	Neritidae	<i>Neritina usnea</i>	ES/FW		
Mollusca	Gastropoda	Cystiscidae	<i>Persicula pulcherrima</i>	ES		Formerly genus <i>Cucumaria</i> ?
Mollusca	Gastropoda	Natiscidae	<i>Tectonatica pusilla</i>	ES		Formerly <i>Natica pusilla</i> ?
Mollusca	Gastropoda	Collumbellidae	<i>Costoanachis avara</i>	ES		Formerly <i>Anachis avara</i>
			<i>Astyris lunata</i>	ES		Formerly <i>Mitrella lunata</i>
			<i>Parvanachis obesa</i>	ES		Formerly <i>Anachis obesa</i> ?
Mollusca	Gastropoda	Cerithiidae	<i>Bittium varium</i>	ES		Formerly <i>Bittium varium</i> ?
Mollusca	Gastropoda	Caecidae	<i>Caecum pulchellum</i>	ES		
			<i>Meioceris nitidum</i>	ES		Formerly <i>Caecum nitidum</i> ?
Mollusca	Gastropoda	Calyptraeidae	<i>Crepidula fornicata</i>	ES		
			<i>Crepidula</i> sp.	ES		
Mollusca	Gastropoda	Fasciolariidae	<i>Fasciolaria hunteria</i>	ES		
			<i>Fasciolaria tulipa</i>	ES		
			<i>Leucozonia</i> sp.	ES/MA		
Mollusca	Gastropoda	Muricidae	<i>Eupleura caudata</i>	ES/MA		
Mollusca	Gastropoda	Lymnaeidae	<i>Pseudosuccinea columella</i>	FW	Y	
			<i>Pseudosuccinea</i> sp. ?	FW	Y	Listed as " <i>Lymnaea</i> " in source-this genus not in Florida
Mollusca	Gastropoda	Cerithiopsidae	<i>Seila adamsii</i>	ES		
Mollusca	Gastropoda	Retusidae	<i>Retusa</i> sp.	ES		Species " <i>candei</i> " not listed in Camp et al. 1998
Mollusca	Gastropoda	Cylichnidae	<i>Acteocina canaliculata</i>	ES		
Mollusca	Gastropoda	Olividae	<i>Oliva sayana</i>	ES		
			<i>Olivella</i> sp.	ES		Species " <i>dealbata</i> " not listed in Camp et al. 1998
Mollusca	Gastropoda	Aplysiidae	<i>Aplysia brasiliana</i>	ES		
			<i>Bursatella leachii plei</i>	ES		
Mollusca	Gastropoda	Marginellidae	<i>Granulina ovuliformis</i>	FW/ES		
			<i>Prunum apicinum</i>	ES		Formerly <i>Marginella apicina</i> ?

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
Mollusca	Gastropoda	Pyramidellidae	<i>Odostomia</i> sp.	ES		
Mollusca	Bivalvia	Arcidae	<i>Anadara transversa</i>	MA/ES		
Mollusca	Bivalvia	Lasaeidae	<i>Mysella planulata</i>	ES		
Mollusca	Bivalvia	Mytilidae	<i>Amygdalum papyrium</i>	ES		
			<i>Amygdalum sagittatum</i>	ES		MisID? Camp et al. 1998 do not list in Florida
			<i>Brachidontes domingensis</i>	ES		
			<i>Brachidontes exustus</i>	ES		
			<i>Geukensia demissa</i>	ES		
			<i>Ischadium recurvum</i>	ES		
			<i>Mytilus</i> sp.	MA/ES		Does occur in Florida (listed in Camp et al. 1998)
Mollusca	Bivalvia	Semelidae	<i>Abra aequalis</i>	ES		
			Semelidae sp.	ES		
Mollusca	Bivalvia	Corbiculidae	<i>Corbicula fluminea</i>	FW	Y	Exotic
			<i>Polymesoda caroliniana</i>	ES/FW		
Mollusca	Bivalvia	Ostreidae	<i>Crassostrea virginica</i>	ES		
			<i>Ostrea equestris</i>	ES		
Mollusca	Bivalvia	Crassatellidae	<i>Crassinella lunulata</i>	ES		
Mollusca	Bivalvia	Unionidae	<i>Anodonta couperiana</i>	FW		
			<i>Carunculina parva</i>	FW	Y	
			<i>Elliptio ahenea</i>	FW		may be <i>E. waltoni</i> (Blue Cypress Lake - FWCC study)
			<i>Elliptio buckleyi</i>	FW	Y	
			<i>Elliptio icterina</i>	FW	Y	
			<i>Elliptio jayensis</i>	FW	Y	
			<i>Elliptio monroensis</i>	FW		Endemic to SJR drainage
			<i>Elliptio</i> sp.	FW	Y	
			<i>Toxolasma paulus</i>	FW	Y	
			<i>Toxolasma</i> sp.	FW	Y	
			<i>Uniomerus carolinianus</i>	FW	Y	
			<i>Utterbackia imbecilis</i>	FW		
			<i>Villosa amygdala</i>	FW	Y	
			<i>Villosa vibex</i>	FW		
			<i>Villosa villosa</i>	FW		
			<i>Villosa</i> sp.	FW	Y	
Mollusca	Bivalvia	Dressenidae	<i>Mytilopsis leucophaeata</i>	ES/FW		
Mollusca	Bivalvia	Pisidiidae	<i>Eupera cubensis</i>	FW		Formerly <i>Byssanodonta cubensis</i>
			<i>Musculium lacustre</i>	FW		
			<i>Musculium partumeium</i>	FW		
			<i>Musculium securis</i>	FW		
			<i>Musculium transversum</i>	FW		

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
			<i>Musculium</i> sp.	FW/ES	Y	
			<i>Pisidium adamsi</i>	FW		
			<i>Pisidium casertanum</i>	FW		
			<i>Pisidium compressum</i>	FW	Y	
			<i>Pisidium dubium</i>	FW		
			<i>Pisidium punctiferum</i>	FW		
			<i>Pisidium</i> sp.	FW/ES	Y	
			<i>Sphaerium occidentale</i>	FW		
			<i>Sphaerium striatinum</i>	FW	Y	
			<i>Sphaerium</i> sp.	FW/ES		
			Pisidiidae sp.	FW		
Mollusca	Bivalvia	Macrtridae	<i>Rangia cuneata</i>	ES/FW		
			<i>Mulinia lateralis</i>	ES		
Mollusca	Bivalvia	Solecurtidae	<i>Tagelus divisus</i>	ES		
			<i>Tagelus plebius</i>	ES		
Mollusca	Bivalvia	Tellinidae	<i>Macoma tenta</i>	ES		
			<i>Macoma</i> sp.	ES		
			<i>Tellina alternata</i>	MA/ES		
			<i>Tellina laevigata</i>	MA/ES		
			<i>Tellina lineata</i>	MA/ES		
			<i>Tellina sybaritica</i>	MA/ES		
			<i>Tellina tenella</i>	MA/ES		
			<i>Tellina versicolor</i>	MA/ES		
			<i>Tellina</i> sp.	MA/ES		
Mollusca	Bivalvia	Veneridae	<i>Anomalocardia auberiana</i>	MA/ES		
			<i>Chione</i> sp.	MA/ES		
			<i>Dosinia discus</i>	MA/ES		
			<i>Mercenaria campechiensis</i>	ES/MA		
Mollusca	Bivalvia	Pharidae	<i>Ensis minor</i>	ES		
Mollusca	Bivalvia	Cardiidae	<i>Laevicardium mortoni</i>	MA/ES		
Mollusca	Bivalvia	Ungulinidae	<i>Diplodonta</i> sp.	ES/MA		
Mollusca	Bivalvia	Lyonsiidae	<i>Lyonsia hyalina</i>	ES		
			<i>Lyonsia</i> sp.	ES/MA		
Mollusca	Bivalvia	Pholadidae	<i>Martesia fragilis</i>	MA/ES		Formerly <i>Maetra fragilis</i> ?
Mollusca	Bivalvia	Nuculidae	<i>Nucula aegeensis</i>	ES		Not listed in Florida in Camp et al. 1998
			<i>Nucula proxima</i>	ES		
Mollusca	Bivalvia	Petricolidae	<i>Petricolaria pholadiformis</i>	ES		Formerly <i>Petricola pholadiformis</i> ?
Mollusca	Bivalvia	Pteriidae	Pteriidae sp.	ES		
Mollusca	Bivalvia	Myidae	<i>Sphenia antillensis</i>	ES		

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
Mollusca	Cephalopoda	Octopodidae	<i>Octopus vulgaris</i>	MA/ES		
Annelida	Polychaeta	Ampharetidae	<i>Amphicties gunneri</i>	ES		
			<i>Asabellides</i> sp.	ES	No longer a valid genus in this family ?	
			<i>Hobsonia florida</i>	ES/FW		
			<i>Melinna maculata</i>	ES		
Annelida	Polychaeta	Oweniidae	<i>Galathowenia oculata</i>	ES		
			<i>Owenia fusiformis</i>	ES		
Annelida	Polychaeta	Lumbrineridae	<i>Lumbrineris tetraura</i>	ES	Formerly <i>L. impatiens</i>	
			<i>Lumbrineris tenuis</i>	ES		
			<i>Lumbrineris verrilli</i>	ES	Formerly <i>Scoletoma verrilli</i>	
Annelida	Polychaeta	Nereididae	<i>Laeonereis culveri</i>	ES		
			<i>Nereis acuminata</i>	ES	Formerly <i>Neanthes acuminata</i>	
			<i>Nereis falsa</i>	ES		
			<i>Nereis succinea</i>	ES/MA	Formerly <i>Neanthes succinea</i>	
			<i>Nereis</i> sp.	ES		
			<i>Platynereis dumerilli</i>	ES		
Annelida	Polychaeta	Pectinariidae	<i>Pectinaria gouldi</i>	ES/MA		
Annelida	Polychaeta	Phyllodocidae	<i>Eteone heteropoda</i>	ES		
			<i>Nereiphylla castanea</i>	ES	Formerly <i>Phyllodoce castanea</i>	
			<i>Phyllodoce arenae</i>	ES		
			Phyllodocidae sp.	ES		
Annelida	Polychaeta	Glyceridae	<i>Glycera americana</i>	ES		
			<i>Glycera dibranchiata</i>	ES		
			<i>Glycera sphyrabrancha</i>	ES		
			<i>Glyceridae</i> sp.	ES		
			<i>Hemipodus roseus</i>	ES		
			<i>Glycinde solitaria</i>	ES		
Annelida	Polychaeta	Goniadidae	<i>Goniadidae</i> sp.	ES		
				ES		
Annelida	Polychaeta	Pilargidae	<i>Ancistrosyllis jonesi</i>	ES		
			<i>Sigambra bassi</i>	ES		
			<i>Sigambra tentaculata</i>	ES		
			<i>Sigambra</i> sp.	ES		
Annelida	Polychaeta	Syllidae	<i>Brania wellfleetensis</i>	ES		
			<i>Exogone lourei</i>	ES		
			<i>Exogone rolani</i>	ES		
			<i>Grubeosyllis clavata</i>	ES		
			<i>Odontosyllis enopla</i>	ES		
			<i>Parapionosyllis longicirrata</i>	ES		
			<i>Streptosyllis arenae</i>	ES		

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
			<i>Streptosyllis pettiboneae</i>	ES		
			<i>Syllis broomensis</i>	ES		
			<i>Syllis cornuta</i>	ES		
Annelida	Polychaeta	Nephtyidae	<i>Nephtys picta</i>	ES		
Annelida	Polychaeta	Polynoidae	<i>Malmgreniella maccraryae</i>	ES		
Annelida	Polychaeta	Onuphidae	<i>Diopatra cuprea</i>	ES		
			<i>Epidiopatra hupferiana</i>	ES		Not in Camp et al. 1998 - misidentification ?
			<i>Kinbergonuphis simoni</i>	ES		
			<i>Mooreonuphis pallidula</i>	ES		
			Onuphidae sp.	ES		
Annelida	Polychaeta	Orbiniidae	<i>Leitoscoloplos fragilis</i>	ES		Synonomus with <i>Haploscoloplos fragilis</i>
			<i>Leitoscoloplos robustus</i>	ES		
			<i>Leitoscoloplos</i> sp.	ES		
			<i>Orbinia riseri</i>	ES		
			<i>Scoloplos rubra</i>	ES		
Annelida	Polychaeta	Spionidae	<i>Apoprionospio pygmaea</i>	ES		
			<i>Boccardiella hamata</i>	ES		Formerly <i>Boccardia hamata</i>
			<i>Boccardiella ligerica</i>	ES		
			<i>Boccardiella</i> sp.	ES		
			<i>Carazziella hobsonae</i>	ES		
			<i>Marenzelleria viridis</i>	ES		Synonym with <i>Scolecopides viridis</i>
			<i>Paraprionospio pinnata</i>	ES		
			<i>Polydora socialis</i>	ES		Not listed in Camp et al. 1998
			<i>Polydora websteri</i>	ES		
			<i>Polydora</i> sp.	ES		
			<i>Prionospio cirrobranchiata</i>	ES		Incorrect sp. name ? Not in Camp et al. 1998
			<i>Prionospio cristata</i>	ES		
			<i>Prionospio</i> sp.	ES		
			<i>Scolecopsis squamatus</i>	ES		
			<i>Scolecopsis texana</i>	ES		
			<i>Spio pettiboneae</i>	ES		
			Spionidae sp.	ES		
			<i>Spiophanes bombyx</i>	ES		
			<i>Streblospio benedicti</i>	ES		
			<i>Streblospio</i> sp.	ES		
Annelida	Polychaeta	Magelonidae	<i>Magelona pettiboneae</i>	ES		
			<i>Magelona phyllisae</i>	ES		
			<i>Magelona</i> sp.	ES		
Annelida	Polychaeta	Paraonidae	<i>Aricidea philbinae</i>	ES		
			<i>Aricidea taylori</i>	ES		

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
			<i>Aricidea</i> sp.	ES		
			<i>Cirrophorus lyriformis</i>	ES		Not in Camp et al. 1998
			<i>Cirrophorus lyra</i>	ES		
			<i>Levinsenia gracilis</i>	ES		Formerly <i>Paraonis gracilis</i> ?
			Paraonidae sp.	ES		
Annelida	Polychaeta	Cirratulidae	<i>Caulleriella</i> sp.	ES		
			<i>Cirriformia grandis</i>	ES		
			Cirratulidae sp.	ES		
			<i>Monticellina dorsobranchialis</i>	ES		
			<i>Tharyx</i> sp.	ES		Species " <i>marioni</i> " not in Camp et al. 1998
Annelida	Polychaeta	Opheliidae	<i>Armandia maculata</i>	ES		
			<i>Armandia</i> sp.	ES		
			<i>Ophelina cylindricaudata</i>	ES		
Annelida	Polychaeta	Capitellidae	<i>Capitella capitata</i>	ES		
			<i>Capitella jonesi</i>	ES		
			<i>Capitella</i> sp.	ES		
			<i>Dasybranchus lumbriculoides</i>	ES		
			<i>Heteromastus filiformis</i>	ES		
			<i>Mediomastus ambiseta</i>	ES		
			<i>Mediomastus californiensis</i>	ES		
			<i>Mediomastus</i> sp.	ES		
			<i>Notomastus latericeus</i>	ES		
Annelida	Polychaeta	Maldanidae	<i>Axiothella mucosa</i>	ES		
			<i>Maldane sarsi</i>	ES		Formerly <i>Antinoella sarsi</i> ?
			<i>Sabaco americanus</i>	ES		
			Maldanidae sp.	ES		
Annelida	Polychaeta	Sabellariidae	<i>Sabellaria vulgaris</i>	ES		
			<i>Sabellaria</i> sp. A	ES		
Annelida	Polychaeta	Terebellidae	<i>Pista quadrilobata</i>	ES		
			<i>Streblosoma hartmanae</i>	ES		
			Terebellidae sp.	ES		
Annelida	Polychaeta	Sabellidae	<i>Fabricinuda trilobata</i>	ES		
Annelida	Polychaeta	Dorvilleidae	<i>Dorvillea rudolphi</i>	ES		Formerly <i>Schistomeringos rudolphi</i>
			Dorvilleidae sp.	ES		
Annelida	Polychaeta	Hesionidae	<i>Microphthalmus sczelkowi</i>	ES		
			<i>Ophiodromus obscurus</i>	ES		Formerly <i>Podarke obscura</i>
			<i>Parahesionia luteola</i>	ES		
			<i>Podarkeopsis levifuscina</i>	ES		
Annelida	Polychaeta	Chaetopteridae	<i>Spiochaetopterus oculatus</i>	ES		
Annelida	Polychaeta	Serpulidae	<i>Ficopomatus miamiensis</i>	ES		

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
Annelida	Polychaeta	Amphinomidae	<i>Hydroides dianthus</i>	ES		
			<i>Pseudeurythoe ambigua</i>	ES		
			<i>Pseudeurythoe fauchaldi</i>	ES		Formerly <i>Hypereteone fauchaldi</i> ?
Annelida	Polychaeta	Polynoidae	Polynoidae sp.	ES		
Annelida	Polychaeta	Sigalionidae	<i>Sithenelais</i> sp. A.	ES		
Annelida	Hirudinea		<i>Actinobdella inequiannulata</i>	FW	Y	
			<i>Desserobdella phalera</i>	FW	Y	
			<i>Erpobdella punctata</i>	FW	Y	
			<i>Gloiobdella elongata</i>	FW	Y	
			<i>Helobdella elongata</i>	FW	Y	
			<i>Helobdella fusca</i>	FW	Y	
			<i>Helobdella stagnalis</i>	FW	Y	
			<i>Helobdella triserialis</i>	FW	Y	
			<i>Macrobdella diterta</i>	FW		
			<i>Mooreobdella microstoma</i>	FW	Y	
			<i>Mooreobdella tetragon</i>	FW	Y	
			<i>Myzobdella lugubris</i>	FW	Y	
			<i>Placobdella ornata</i>	FW		
			Piscicolidae sp.	FW		
Annelida	Oligochaeta		<i>Aeolosoma travencorensis</i>	FW		
			<i>Aphanoneura</i> sp.	FW		Blue Cypress Lake - FWCC study
			<i>Allonais inaequalis</i>	FW	Y	
			<i>Allonais pectinata</i>	FW	Y	
			<i>Allonais</i> sp.	FW/ES		
			<i>Amphichaeta americana</i>	FW		
			<i>Amphichaeta leydigi</i>	FW	Y	
			<i>Aulodrilus paucichaeta</i>	FW		
			<i>Aulodrilus pigueti</i>	FW	Y	
			<i>Aulodrilus pleuraseta</i>	FW		
			<i>Branchiura sowerbyi</i>	FW		
			<i>Bratislavia unidentata</i>	FW	Y	
			<i>Chaetogaster diaphanus</i>	FW	Y	
			<i>Chaetogaster diastrophus</i>	FW	Y	
			<i>Chaetogaster limnaei</i>	FW	Y	
			<i>Chaetogaster</i> sp.	FW	Y	
			<i>Crustipellis tribranchiata</i>	FW		
			<i>Dero botrytis</i>	FW	Y	
	<i>Dero digitata</i> complex	FW	Y			



Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
			<i>Dero flabelliger</i>	FW	Y	
			<i>Dero furcata</i>	FW	Y	
			<i>Dero lodeni</i>	FW	Y	
			<i>Dero nivea</i>	FW	Y	
			<i>Dero obtusa</i>	FW	Y	
			<i>Dero pectinata</i>	FW	Y	
			<i>Dero trifida</i>	FW	Y	
			<i>Dero vaga</i>	FW	Y	
			<i>Dero</i> sp.	FW	Y	
			<i>Eclipidrilus palustris</i>	FW	Y	
			<i>Eclipidrilus</i> sp.	FW	Y	
			Enchytraeidae sp.	FW	Y	
			<i>Haber speciosus</i>	FW	Y	
			<i>Haemonais waldvogeli</i>	FW	Y	
			<i>Ilyodrilus templetoni</i>	FW	Y	
			<i>Isochaetides freyi</i>	FW		
			<i>Limnodrilus angustipenis</i>	FW		
			<i>Limnodrilus hoffmeisteri</i>	FW/ES	Y	
			<i>Limnodrilus profundicola</i>	FW		
			<i>Lumbriculus variegatus</i>	FW	Y	
			<i>Lumbriculus</i> sp. (?)	FW	Y	
			Lumbriculidae sp.	FW		
			<i>Nais bretscheri</i>	FW		
			<i>Nais communis</i>	FW	Y	
			<i>Nais elinguis</i>	FW	Y	
			<i>Nais simplex</i>	FW		
			<i>Nais variabilis</i>	FW	Y	
			<i>Nais</i> sp.	FW	Y	
			Naididae sp.	FW		
			<i>Paranais littoralis</i>	FW	Y	
			<i>Peloscolex benedini</i>	ES		European taxon ? Not present in US ?
			<i>Peloscolex gabriellae</i>	ES/MA		European taxon ? Not present in US ?
			<i>Peloscolex</i> sp.	ES		
			<i>Potamothrix hammoniensis</i>	ES		
			<i>Pristina aequiseta</i>	FW	Y	
			<i>Pristina breviseta</i>	FW	Y	
			<i>Pristina leidyi</i>	FW	Y	
			<i>Pristina synclites</i>	FW	Y	
			<i>Pristina</i> sp.	FW	Y	
			<i>Pristinella jenkiniae</i>	FW		

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
			<i>Pristinella longisoma</i>	FW		
			<i>Pristinella osborni</i>	FW		
			<i>Pristinella sima</i>	FW	Y	
			<i>Psammoryctides convolutus</i>	FW	Y	
			<i>Questidrilus multisetosus</i>	FW/ES		
			<i>Slavina appendiculata</i>	FW	Y	
			<i>Specaria josinae</i>	FW		
			<i>Spirosperma ferox</i>	FW/ES	Y	Synonymn with <i>Peloscolex ferox</i>
			<i>Spirosperma</i> sp.	FW	Y	
			<i>Stephensoniana tandyi</i>	FW		
			<i>Stephensoniana trivandrana</i>	FW	Y	
			<i>Stylaria lacustris</i>	FW	Y	
			<i>Stylaria</i> sp.	FW		
			<i>Stylodrilus heringianus</i>	FW		
			<i>Trieminentia corderoi</i>	FW		
			<i>Tubifex tubifex</i>	FW		
			<i>Tubificidae</i> sp.	FW		
			<i>Tubificoides heterochaetus</i>	FW		
			<i>Varichaetadrilus angustipenis</i>	FW	Y	
Collembola	Sminthuridae		<i>Sminthurid</i> sp.	FW	Y	
Diptera	Chironomidae	Tanypodinae	<i>Ablabesmyia annulata</i>	FW	Y	
			<i>Ablabesmyia parajanta</i>	FW		
			<i>Ablabesmyia mallochi</i>	FW	Y	
			<i>Ablabesmyia rhamphe</i> grp.	FW	Y	
			<i>Ablabesmyia</i> sp.	FW		
			<i>Alotanypus aris</i>	FW		
			<i>Alotanypus</i> sp.	FW		
			<i>Apsectrotanypus</i> sp.	FW		
			<i>Clinotanypus</i> sp.	FW	Y	
			<i>Coelotanypus concinnus</i>	FW		
			<i>Coelotanypus scapularis</i>	FW/ES		
			<i>Coelotanypus tricolor</i>	FW		
			<i>Coelotanypus</i> sp.	FW		
			<i>Conchapelopia</i> sp.	FW		
			<i>Djalmabatista pulchra</i>	FW	Y	
			<i>Djalmabatista</i> sp.	FW		
			<i>Fittkauimyia sarta</i>	FW	Y	
			<i>Labrundinia becki</i>	FW	Y	

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			<i>Labrundinia johannseni</i>	FW	Y	
			<i>Labrundinia neopilosella</i>	FW	Y	
			<i>Labrundinia pilosella</i>	FW	Y	
			<i>Labrundinia</i> sp.	FW	Y	
			<i>Larsia decolorata</i>	FW	Y	
			<i>Larsia indistincta</i>	FW	Y	
			<i>Larsia</i> sp.	FW	Y	
			<i>Monopelopia boliekae</i>	FW	Y	
			<i>Nilotanypus fimbriatus</i>	FW	Y	
			<i>Paramerina</i> sp.	FW	Y	
			<i>Pentaneura inconspicua</i>	FW	Y	Synonymous with <i>P. inculta</i>
			<i>Pentaneura</i> sp.	FW		
			<i>Procladius bellus</i>	FW		
			<i>Procladius</i> sp.	FW/ES	Y	
			<i>Psectrocladius</i> sp.	FW		
			<i>Psectrotanypus</i> sp.	FW		
			<i>Tanypus neopunctipennis</i>	FW		
			<i>Tanypus stellatus</i>	FW		
			<i>Tanypus</i> sp.	FW	Y	
			<i>Thienemannimyia</i> sp.	FW		
Diptera	Chironomidae	Orthoclaadiinae	<i>Brillia flavifrons</i>	FW/ES		
			<i>Corynoneura lobata</i>	FW	Y	Synonymous with <i>C. taris</i>
			<i>Corynoneura</i> sp. C (Epler)	FW	Y	
			<i>Corynoneura</i> sp.	FW	Y	
			<i>Cricotopus bicinctus</i>	FW	Y	
			<i>Cricotopus politus</i>	FW	Y	
			<i>Cricotopus sylvestris</i>	FW		
			<i>Cricotopus trifasciatus</i>	FW		
			<i>Cricotopus/Orthocladius</i> group	FW	Y	
			<i>Epoicocladius flavens</i>	FW	Y	
			<i>Eukiefferiella</i> sp.	FW		
			<i>Nanocladius balticus</i>	FW	Y	
			<i>Nanocladius distinctus</i>	FW		
			<i>Nanocladius minimus</i>	FW		
			<i>Nanocladius</i> sp.	FW	Y	
			<i>Orthocladius</i> sp.	FW		
			<i>Parakiefferiella</i> sp. C (Epler)	FW		
			<i>Parakiefferiella</i> sp.	FW		
			<i>Psectrocladius vernalis</i>	FW		
			<i>Psectrocladius</i> sp.	FW		

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
			<i>Pseudosmittia</i> sp.	FW	Y	
			<i>Rheocricotopus robacki</i>	FW	Y	
			<i>Smittia</i> sp.	FW		
			<i>Stempellinella fimbriata</i>	FW	Y	
			<i>Stempellinella</i> sp.	FW	Y	
			<i>Stilocladius</i> sp.	FW	Y	
			<i>Thienemaniella lobapodema</i>	FW		Formerly <i>Thienemaniella</i> sp. A (Epler)
			<i>Thienemaniella similis</i>	FW	Y	
			<i>Thienemanniella</i> sp.	FW	Y	
Diptera	Chironomidae	Chironominae	<i>Apedilum</i> sp.	FW	Y	
			<i>Asheum beckae</i>	FW		
			<i>Axarus</i> sp.	FW		
			<i>Beardius truncatus</i>	FW	Y	
			<i>Beardius</i> sp.	FW		
			<i>Chironomus crassicaudatus</i>	FW		
			<i>Chironomus decorus</i> group	FW	Y	Includes <i>C. attenuatus</i>
			<i>Chironomus</i> cf <i>longipes</i>	FW		
			<i>Chironomus major</i>	FW		Epler says may occur in Florida - record unconfirmed
			<i>Chironomus plumosus</i>	FW		
			<i>Chironomus riparius</i>	FW		
			<i>Chironomus staegeri</i>	FW		
			<i>Chironomus stigmaterus</i>	FW		
			<i>Chironomus</i> sp.	FW	Y	
			<i>Cladopelma</i> sp.	FW	Y	
			<i>Cladotanytarsus</i> cf <i>daviesi</i>	FW	Y	
			<i>Cladotanytarsus</i> sp.	FW/ES	Y	
			<i>Cryptochironomus blarina</i>	FW		
			<i>Cryptochironomus fulvus</i>	FW/ES		
			<i>Cryptochironomus</i> sp.	FW	Y	
			<i>Cryptotendipes</i> sp.	FW	Y	
			<i>Demicryptochironomus</i> sp.	FW	Y	
			<i>Dicrotendipes leucoscelis</i>	FW		
			<i>Dicrotendipes lobus</i>	FW		
			<i>Dicrotendipes modestus</i>	FW	Y	
			<i>Dicrotendipes neomodestus</i>	FW/ES	Y	
			<i>Dicrotendipes nervosus</i>	FW/ES		
			<i>Dicrotendipes simpsoni</i>	FW/ES		
			<i>Dicrotendipes tritonus</i> ?	FW	Y	
			<i>Dicrotendipes</i> sp. A (Epler)	FW	Y	
			<i>Dicrotendipes</i> sp.	FW	Y	

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
			<i>Einfeldia natchitochaeae</i>	FW	Y	
			<i>Einfeldia</i> sp.	FW	Y	
			<i>Endochironomus nigricans</i>	FW		
			<i>Endochironomus subtendens</i>	FW		
			<i>Endotribelos hesperium</i>	FW	Y	
			<i>Fissimentum</i> sp.	FW	Y	
			<i>Glyptotendipes lobiferus</i>	FW		
			<i>Glyptotendipes meridionalis</i> group	FW	Y	
			<i>Glyptotendipes paripes</i>	FW	Y	
			<i>Glyptotendipes</i> sp.	FW	Y	
			<i>Goeldichironomus amazonicus</i>	FW	Y	
			<i>Goeldichironomus carus</i>	FW	Y	Synonymous with <i>Chironomus carus</i>
			<i>Goeldichironomus holoprasinus</i>	FW	Y	
			<i>Goeldichironomus</i> cf <i>natans</i>	FW		
			<i>Goeldichironomus</i> sp.	FW	Y	
			<i>Harnischia</i> sp. complex	FW	Y	
			<i>Kiefferulus dux</i>	FW		
			<i>Kiefferulus</i> sp.	FW		
			<i>Kribiodorum perpulchrum</i>	FW	Y	Synonymous with <i>Stelechomyia perpulchra</i>
			<i>Micropsectra</i> sp.	FW		
			<i>Microtendipes pedellus</i>	FW	Y	
			<i>Microtendipes</i> sp.	FW/ES		
			<i>Nilothauma</i> sp.	FW	Y	
			<i>Pagastiella</i> sp.	FW	Y	
			<i>Parachironomus carinatus</i>	FW		
			<i>Parachironomus chaetoalus</i>	FW		
			<i>Parachironomus directus</i>	FW		
			<i>Parachironomus frequens</i>	FW		
			<i>Parachironomus longistilus</i>	FW	Y	Synonymous with <i>P. supparilis</i>
			<i>Parachironomus monochromus</i>	FW		
			<i>Parachironomus schneideri</i>	FW		
			<i>Parachironomus</i> sp.	FW	Y	
			<i>Paracladopelma undine</i>	FW		
			<i>Paracladopelma</i> sp.	FW	Y	
			<i>Paralauterborniella nigrohalterale</i>	FW	Y	
			<i>Paratanytarsus</i> sp.	FW	Y	
			<i>Paratendipes subaequalis</i>	FW	Y	
			<i>Paratendipes</i> sp.	FW		
			<i>Phaenopsectra</i> sp.	FW	Y	
			<i>Polypedilum epleri</i>	FW	Y	Formerly <i>Polypedilum</i> sp. A (Epler)

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
			<i>Polypedilum fallax</i> grp.	FW	Y	
			<i>Polypedilum flavum</i>	FW	Y	Includes former <i>P. convictum</i> group
			<i>Polypedilum halerale</i> grp.	FW/ES	Y	
			<i>Polypedilum illinoense</i>	FW	Y	
			<i>Polypedilum nubifer</i>	FW	Y	
			<i>Polypedilum scalaenum</i> grp.	FW/ES	Y	
			<i>Polypedilum trigonus</i>	FW	Y	
			<i>Polypedilum tritum</i>	FW	Y	
			<i>Polypedilum</i> sp.	FW	Y	
			<i>Pseudochironomus</i> sp.	FW	Y	
			<i>Rheotanytarsus exiguus</i> group	FW		
			<i>Rheotanytarsus</i> sp.	FW/ES	Y	
			<i>Stempellina</i> sp.	FW	Y	
			<i>Stempellinella</i> sp.	FW	Y	
			<i>Stenochironomus</i> sp.	FW	Y	
			<i>Stictochironomus</i> sp.	FW	Y	
			<i>Tanytarsus guerlus</i>	FW		
			<i>Tanytarsus limneticus</i>	FW	Y	
			<i>Tanytarsus</i> sp. A (Epler)	FW/ES	Y	
			<i>Tanytarsus</i> sp. C (Epler)	FW	Y	
			<i>Tanytarsus</i> sp. E (Epler)	FW	Y	
			<i>Tanytarsus</i> sp. F (Epler)	FW	Y	
			<i>Tanytarsus</i> sp. G (Epler)	FW	Y	
			<i>Tanytarsus</i> sp. L (Epler)	FW	Y	
			<i>Tanytarsus</i> sp. M (Epler)	FW	Y	
			<i>Tanytarsus</i> sp. P (Epler)	FW	Y	
			<i>Tanytarsus</i> sp. R (Epler)	FW	Y	
			<i>Tanytarsus</i> sp. T (Epler)	FW	Y	
			<i>Tanytarsus</i> sp. V (Epler)	FW	Y	
			<i>Tanytarsus</i> sp.	FW		
			<i>Tribelos fuscicornis</i>	FW	Y	
			<i>Tribelos jucundum</i>	FW	Y	
			<i>Tribelos</i> sp.	FW	Y	
			<i>Xenochironomus xenolabis</i>	FW	Y	
			<i>Zavrelliella marmorata</i>	FW	Y	
Diptera	Ephydriidae		<i>Notiphila</i> sp.	FW	Y	
			Ephydriidae sp.	FW	Y	
Diptera	Culicidae		<i>Anopheles quadrimaculatus</i>	FW	Y	

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
			<i>Anopheles</i> sp.	FW	Y	
			<i>Uranotaenia</i> sp.	FW	Y	
Diptera	Empididae		<i>Hemerodromia</i> sp.	FW	Y	
Diptera	Stratiomyidae		<i>Myxosargus</i> sp.	FW	Y	
			<i>Odontomyia</i> sp.	FW	Y	
			<i>Odontomyia/Hedriodiscus</i> group	FW	Y	
			<i>Stratiomys</i> sp.	FW	Y	
Diptera	Ptychopteridae		<i>Ptychoptera</i> sp.	FW	Y	
Diptera	Ceratopogonidae		<i>Alluaudomyia</i> sp.	FW	Y	
			<i>Atrichopogon</i> sp.	FW	Y	
			<i>Bezzia/Palpomysia</i> complex	FW	Y	
			<i>Clinohelia</i> sp.	FW	Y	
			<i>Culicoides</i> sp. group	FW	Y	
			<i>Dasyhelea</i> sp.	FW	Y	
			<i>Forcipimyia</i> sp.	FW	Y	
			<i>Mallochohelea</i> sp.	FW	Y	
			<i>Palpomysia/Sphaeromyias</i> group	FW	Y	
			<i>Probezzia</i> sp.	FW	Y	
			Ceratopogonidae sp.	FW	Y	
Diptera	Chaoboridae		<i>Chaoborus albatrus</i>	FW		
			<i>Chaoborus punctipennis</i>	FW		
			<i>Chaoborus</i> sp.	FW		
Diptera	Muscidae		Muscid sp.	FW	Y	
Diptera	Simuliidae		<i>Simulium</i> sp.	FW		
Diptera	Tabanidae		<i>Tabanus</i> sp.	FW		
			Tabanidae sp.	FW	Y	
Diptera	Tipulidae		<i>Helius</i> sp.	FW	Y	
			<i>Limonia</i> sp.	FW	Y	
			<i>Tipula</i> sp.	FW		
			Tipulidae sp.	FW	Y	

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
Hemiptera	Saldidae		<i>Microcanthia floridana</i>	FW	Y	
Hemiptera	Veliidae		<i>Microvelia</i> sp.	FW	Y	
			Veliidae sp.	FW		
Hemiptera	Belostomatidae		<i>Abedus</i> sp. ?	FW	Y	
			<i>Belostoma lutarium</i>	FW	Y	
			<i>Belostoma</i> sp.	FW	Y	
			<i>Lethocerus</i> sp.	FW	Y	
Hemiptera	Hebridae		<i>Merragata brunnea</i>	FW	Y	
			<i>Merragata</i> sp.	FW	Y	
Hemiptera	Nepidae		<i>Ranatra buenoi</i>	FW	Y	
			<i>Ranatra nigra</i>	FW	Y	
			<i>Ranatra</i> sp.	FW		
Hemiptera	Mesoveliidae		<i>Mesovelia amoena</i>	FW	Y	
			<i>Mesovelia mulsanti</i>	FW	Y	
			<i>Mesovelia</i> sp.	FW	Y	
			Mesoveliidae sp.	FW		
Hemiptera	Naucoridae		<i>Pelocoris femoratus</i>	FW	Y	
			<i>Pelocoris</i> sp.	FW	Y	
Hemiptera	Gerridae		<i>Aquarius</i> sp.	FW	Y	
			<i>Metrobates</i> sp.	FW	Y	
			<i>Trepobates subnitidus</i>	FW	Y	
			<i>Trepobates</i> sp.	FW	Y	
			Gerridae sp.	FW		
Hemiptera	Pleidae		<i>Paraplea</i> sp.	FW		
Hemiptera	Corixidae		<i>Trichocorixa sexcincta</i>	FW	Y	
			<i>Trichocorixa</i> sp.	FW/ES		
			Corixidae sp.	FW		
Coleoptera	Elmidae		<i>Ancyronyx variegatus</i>	FW		
			<i>Dubiraphia vittata</i>	FW	Y	
			<i>Dubiraphia</i> sp.	FW		
			<i>Microcylloepus pusillus</i>	FW	Y	
			<i>Microcylloepus</i> sp.	FW		
			<i>Stenelmis crenata</i>	FW	Y	
			<i>Stenelmis hungerfordi</i>	FW	Y	
			<i>Stenelmis</i> cf. <i>lignicola</i>	FW	Y	
			<i>Stenelmis musgravei</i>	FW	Y	
			<i>Stenelmis</i> sp.	FW	Y	
Coleoptera	Dytiscidae		<i>Acilius</i> sp.	FW		
			<i>Agabus</i> sp.	FW		



Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
			<i>Celina hubbelli</i>	FW		
			<i>Cybister</i> sp.	FW	Y	
			<i>Desmopachria</i> sp.	FW		
			<i>Hydroporus</i> sp.	FW		
			<i>Hydrovatus pustulatus</i>	FW	Y	
			<i>Laccophilus proximus</i>	FW		
			<i>Liodessus</i> sp.	FW		
			<i>Thermonectus basillaris</i>	FW		
			<i>Uvarus</i> sp.	FW		
Coleoptera	Gyrinidae		<i>Dineutus angustus</i>	FW	Y	
			<i>Dineutus discolor</i>	FW	Y	
			<i>Dineutus nigrrior/assimilus</i>	FW	Y	
			<i>Dineutus serrulatus</i>	FW	Y	
			<i>Dineutus</i> sp.	FW		
			<i>Gyrinus elevatus</i>	FW	Y	
			<i>Gyrinus</i> sp.	FW	Y	
Coleoptera	Chrysomelidae		Chrysomelidae sp.	FW	Y	
Coleoptera	Haliplidae		<i>Haliphus</i> sp.	FW	Y	
			<i>Peltodytes dietrichi</i>	FW	Y	
			<i>Peltodytes floridensis</i>	FW	Y	
			<i>Peltodytes oppositus</i>	FW	Y	
			<i>Peltodytes</i> sp.	FW	Y	
Coleoptera	Hydrophilidae		<i>Berosus</i> sp.	FW		
			<i>Derallus</i> sp.	FW		Probably <i>D. altus</i> (only species listed by Epler)
			<i>Enochrus</i> sp.	FW		
			<i>Helochares</i> sp.	FW		
			<i>Hydrochus</i> sp.	FW	Y	
			<i>Paracymus</i> sp.	FW		
			<i>Tropisternus</i> sp.	FW	Y	
Coleoptera	Noteridae		<i>Hydrocanthus oblongus</i>	FW		
			<i>Hydrocanthus</i> sp.	FW		
			<i>Suphis</i> sp.	FW		
			<i>Suphisellus</i> sp.	FW		
Coleoptera	Dryopidae		<i>Pelonomus obscurus</i>	FW	Y	
			<i>Pelonomus</i> sp.	FW		
Coleoptera	Scirtidae		<i>Cyphon</i> sp.	FW	Y	
			<i>Scirtes</i> sp.	FW		
Coleoptera	Hydraenidae		Hydraenidae sp.	FW		
Odonata	Anisoptera	Gomphidae	<i>Aphylla williamsoni</i>	FW	Y	

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
			<i>Dromogomphus armatus</i>	FW	Y	
			<i>Dromogomphus</i> sp.	FW	Y	
			<i>Gomphus dilatatus</i>	FW	Y	
			<i>Gomphus minutus</i>	FW		
			<i>Gomphus</i> sp.	FW	Y	
			<i>Progomphus</i> sp.	FW		
			<i>Stylurus plagiatus</i>	FW	Y	
			<i>Stylurus</i> sp.	FW	Y	
Odonata	Anisoptera	Aeshnidae	<i>Anax junius</i>	FW		
			<i>Boyeria vinosa</i>	FW	Y	
			<i>Coryphaeshna</i> sp.	FW		
			<i>Nasiaeschna pentacantha</i>	FW	Y	
Odonata	Anisoptera	Libellulidae	<i>Crocothemis servilia</i>	FW		Exotic species
			<i>Erythemis plebyja</i>	FW		
			<i>Erythemis simplicicollis</i>	FW	Y	
			<i>Erythemis</i> sp.	FW		
			<i>Erythrodiplax minuscula</i>	FW		
			<i>Ladona deplanata</i>	FW		
			<i>Libellula incesta</i>	FW		
			<i>Libellula</i> sp.	FW		
			<i>Macromia taeniolata</i>	FW		
			<i>Macromia</i> sp.	FW	Y	
			<i>Nannothemis</i> sp.	FW		
			<i>Orthemis ferruginea</i>	FW		
			<i>Pachydiplax longipennis</i>	FW		
			<i>Perithemis tenera seminole</i>	FW	Y	
			<i>Perithemis</i> sp.	FW		
			<i>Sympetrum</i> sp.	FW		Possibly <i>S. corruptum</i> (only spp in Fla. in genus)??
			<i>Tramea lacerta</i>	FW		
			Libellulidae sp.	FW		
Odonata	Anisoptera	Corduliinae	<i>Epithea princeps regina</i>	FW	Y	
			<i>Epithea</i> sp.	FW	Y	
			<i>Helocordulia</i> sp.	FW		
			<i>Neurocordulia alabamensis</i>	FW		
			<i>Somatochlora</i> sp.	FW		Possibly <i>S. linearis</i> (only spp in Fla. in genus)??
Odonata	Zygoptera	Calopterygidae	<i>Calopteryx dimidiata</i>	FW	Y	
			<i>Calopteryx maculata</i>	FW	Y	
			<i>Hetaerina titia</i>	FW	Y	
			<i>Hetaerina</i> sp.	FW	Y	

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
Odonata	Zygoptera	Lestidae	<i>Archilestes</i> sp.	FW		
Odonata	Zygoptera	Coenagrionidae	<i>Argia fumipennis</i>	FW		
			<i>Argia moesta</i>	FW		
			<i>Argia sedula</i>	FW	Y	
			<i>Argia tibialis</i>	FW		
			<i>Argia</i> sp.	FW	Y	
			<i>Enallagma cardenium</i>	FW		
			<i>Enallagma civile</i> '	FW		
			<i>Enallagma coecum</i>	FW	Y	
			<i>Enallagma divagans</i>	FW/ES		
			<i>Enallagma doubledayi</i>	FW		
			<i>Enallagma dubium</i>	FW		
			<i>Enallagma durum</i>	FW		
			<i>Enallagma pallidum</i>	FW	Y	
			<i>Enallagma pollutum</i>	FW	Y	
			<i>Enallagma weewa</i>	FW	Y	
			<i>Enallagma</i> sp.	FW	Y	
			<i>Ischnura credula</i>	FW		
			<i>Ischnura hastata</i>	FW	Y	
			<i>Ischnura kellicotti</i>	FW	Y	
			<i>Ischnura posita</i>	FW	Y	
			<i>Ischnura ramburii</i>	FW		
			<i>Ischnura</i> sp.	FW	Y	
			<i>Nehalennia</i> sp.	FW		
			<i>Telebasis byersi</i>	FW	Y	
Ephemeroptera	Caenidae		<i>Brachycercus maculatus</i>	FW	Y	
			<i>Caenis diminuta</i>	FW/ES	Y	
			<i>Caenis hilaris</i>	FW		
			<i>Caenis</i> sp.	FW	Y	
			<i>Cercobrachys etowah</i>	FW	Y	
Ephemeroptera	Baetidae		<i>Acerpenna pygmaea</i>	FW	Y	
			<i>Baetis intercalaris</i>	FW		
			<i>Baetis</i> sp.	FW	Y	
			<i>Callibaetis floridanus</i>	FW/ES	Y	
			<i>Callibaetis pretiosus</i>	FW		
			<i>Callibaetis</i> sp.	FW	Y	
			<i>Plauditus alachua</i>	FW		
			<i>Plauditus punctiventris</i>	FW	Y	
			<i>Procloeon hobbsi</i>	FW	Y	

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
			<i>Procloeon viridoculare</i>	FW	Y	
			<i>Procloeon</i> sp.	FW	Y	
			<i>Pseudocloeon ephippiatum</i>	FW	Y	
			<i>Pseudocloeon propinquum</i>	FW	Y	
		Baetidae sp.		FW		
Ephemeroptera	Baetiscidae		<i>Baetisca gibbera</i>	FW		Black Creek disjunct population
Ephemeroptera	Ephemerellidae		<i>Eurylophella doris</i>	FW		
			<i>Eurylophella temporalis</i>	FW		No longer valid (syn. with <i>E. doris</i> ) ?
Ephemeroptera	Leptophlebiidae		<i>Choroterpes basalis</i>	FW		Formerly <i>C. hubbelsi</i> ?
			<i>Leptophlebia</i> sp.	FW		
			<i>Paraleptophlebia volitans</i>	FW		
		Leptophlebiidae sp.		FW		
Ephemeroptera	Heptageniidae		<i>Stenacron floridense</i>	FW		
			<i>Stenacron interpunctatum</i>	FW	Y	
			<i>Stenonema exiguum</i>	FW	Y	
			<i>Stenonema mexicanum integrum</i>	FW		
			<i>Stenonema smithae</i>	FW		
			<i>Stenonema</i> sp.	FW	Y	
Ephemeroptera	Ephemeridae		<i>Ephemerella simulans</i>	FW		Single Clay Co. record in Berner and Pescador
			<i>Hexagenia limbata</i>	FW	Y	
			<i>Hexagenia orlando</i>	FW		Endemic to peninsular Florida
Ephemeroptera	Leptohyphidae		<i>Tricorythodes albilineatus</i>	FW/ES	Y	
Ephemeroptera	Neoephemeridae		<i>Neoephemerella youngi</i>	FW	Y	Questionable - Berner & Pescador say panhandle only
Plecoptera			<i>Acroneuria</i> sp.	FW		Black Creek disjunct population
Trichoptera	Brachycentridae		<i>Brachycentrus</i> sp.	FW		
Trichoptera	Hydropsychidae		<i>Cheumatopsyche</i> sp.	FW	Y	
			<i>Hydropsyche sparna</i>	FW		Pescador et al. 2004 list as "likely to occur in Fla."
			<i>Hydropsyche</i> sp.	FW	Y	
			<i>Macrostemum carolina</i>	FW		
Trichoptera	Philopotamidae		<i>Chimarra florida</i>	FW		SGCN in Florida Wildlife Legacy Initiative
			<i>Chimarra</i> sp.	FW		
Trichoptera	Polycentropodidae		<i>Cernotina spicata</i>	FW		
			<i>Cernotina truncona</i>	FW		
			<i>Cernotina</i> sp.	FW	Y	
			<i>Cynellus fraternus</i>	FW		
			<i>Cynellus</i> sp.	FW		
			<i>Neureclipsis crepuscularis</i>	FW	Y	
			<i>Neureclipsis</i> sp.	FW	Y	

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
			<i>Nyctiophylax</i> sp.	FW		
			<i>Paranyctiophylax</i> sp.	FW	Y	
			<i>Polycentropus cinereus</i>	FW	Y	
			<i>Polycentropus</i> sp.	FW		
Trichoptera	Hydroptilidae		<i>Hydroptila wakulla</i>	FW	Y	SGCN in Florida Wildlife Legacy Initiative
			<i>Hydroptila</i> sp.	FW/ES	Y	
			<i>Mayatrichia amaya</i>	FW	Y	
			<i>Neotrichia</i> sp.	FW	Y	
			<i>Orthotrichia curta</i>	FW		SGCN in Florida Wildlife Legacy Initiative
			<i>Orthotrichia dentata</i>	FW		SGCN in Florida Wildlife Legacy Initiative
			<i>Orthotrichia instabilis</i>	FW		SGCN in Florida Wildlife Legacy Initiative
			<i>Orthotrichia</i> sp.	FW/ES	Y	
			<i>Oxyethira elerobi</i>	FW		SGCN in Florida Wildlife Legacy Initiative
			<i>Oxyethira florida</i>	FW		SGCN in Florida Wildlife Legacy Initiative
			<i>Oxyethira janella</i>	FW	Y	SGCN in Florida Wildlife Legacy Initiative
			<i>Oxyethira</i> sp.	FW	Y	
Trichoptera	Psychomyiidae		<i>Lype diversa</i>	FW	Y	
Trichoptera	Molannidae		<i>Molanna tryphena</i>	FW		
			<i>Molanna</i> sp.	FW		
Trichoptera	Leptoceridae		<i>Ceraclea spongillovorax</i>	FW		May no longer be valid species in Florida
			<i>Leptocerus</i> sp.	FW		
			<i>Nectopsyche candida</i>	FW	Y	
			<i>Nectopsyche exquisita</i>	FW	Y	
			<i>Nectopsyche pavidata</i>	FW	Y	
			<i>Nectopsyche</i> sp.	FW	Y	
			<i>Oecetis cinerascens</i>	FW		
			<i>Oecetis daytona</i>	FW		
			<i>Oecetis georgia</i>	FW		
			<i>Oecetis inconspicua</i> complex	FW	Y	
			<i>Oecetis nocturna</i>	FW	Y	
			<i>Oecetis parva</i>	FW	Y	SGCN in Florida Wildlife Legacy Initiative
			<i>Oecetis persimilis</i>	FW	Y	
			<i>Oecetis porteri</i>	FW		SGCN in Florida Wildlife Legacy Initiative
			<i>Oecetis</i> sp. A	FW		
			<i>Oecetis</i> sp.	FW	Y	
			<i>Triaenodes florida</i>	FW		SGCN in Florida Wildlife Legacy Initiative
			<i>Triaenodes furcella</i>	FW	Y	SGCN in Florida Wildlife Legacy Initiative
			<i>Triaenodes ignita</i>	FW	Y	Formerly <i>T. ignitus</i>
			<i>Triaenodes perna / helo</i>	FW		
			<i>Triaenodes</i> sp.	FW		

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
Trichoptera	Limnephilidae		<i>Pycnopsyche</i> sp.	FW		
Trichoptera	Sericostomatidae		<i>Agarodes libalis</i>	FW		SGCN in Florida Wildlife Legacy Initiative
Lepidoptera			<i>Bellura</i> sp.	FW		
			<i>Eopargyractis</i> sp.	FW	Y	
			<i>Neargyractis slossonalis</i>	FW	Y	
			<i>Paragyraactis</i> sp.	FW/ES		
			<i>Paraponyx</i> sp.	FW	Y	
			<i>Petrophila drumalis</i>	FW	Y	
			<i>Petrophila</i> sp.	FW	Y	
			<i>Synclita</i> sp.	FW	Y	
Sialidae			<i>Sialis</i> sp.	FW	Y	
Megaloptera	Corydalidae		<i>Chauliodes pectinicornis</i>	FW		
			<i>Chauliodes rasticornis</i>	FW	Y	
			<i>Corydalus cornutus</i>	FW	Y	
Neuroptera			<i>Climacia</i> sp.	FW/ES		
			<i>Sisyra</i> sp.	FW		
Chelicerata	Acari		<i>Arrenurus</i> sp.	FW	Y	
			<i>Hydrodroma</i> sp.	FW	Y	
			<i>Hygrobatas</i> sp.	FW		
			<i>Krendowskia</i> sp.	FW		
			<i>Lebertia</i> sp.	FW	Y	
			<i>Limnesia</i> sp.	FW	Y	
			<i>Neumania</i> sp.	FW	Y	
			<i>Piona</i> sp.	FW	Y	
			<i>Tiphys</i> sp.	FW		
			<i>Unionicola</i> sp.	FW		
Chelicerata	Merostomata		<i>Limulus polyphemus</i>	ES/MA		
Crustacea	Tanaidacea		<i>Hargeria rapax</i>	ES		
			<i>Leptocheilia savignyi</i>	ES		Not listed in Florida in Camp et al. 1998
			<i>Leptocheilia</i> sp.	ES		
Crustacea	Cumacea		<i>Almyracuma proximoculi</i>	ES		
			<i>Almyracuma variegata</i>	ES		
			<i>Almyracuma</i> sp.	ES		

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			<i>Cumella</i> sp.	ES		
			<i>Cyclaspis varians</i>	ES		
			<i>Oxyurostylis smithi</i>	ES		
			<i>Vaunthompsonia minor</i>	ES		Formerly <i>Leptocuma minor</i> ?
Crustacea	Mysidacea		<i>Bowmaniella brasiliensis</i>	ES		
			<i>Bowmaniella floridana</i>	ES		Synonymous with <i>B. dissimilis</i>
			<i>Bowmaniella portoricensis</i>	ES		
			<i>Bowmaniella</i> sp.	ES		
			<i>Brasilomysis</i> sp.	ES		
			<i>Americamysis almyra</i>	ES		Formerly <i>Mysidopsis almyra</i>
			<i>Americamysis bahia</i>	ES		Formerly <i>Mysidopsis bahia</i>
			<i>Americamysis bigelowi</i>	ES		Formerly <i>Mysidopsis bigelowi</i>
			<i>Mysidopsis</i> sp.	ES		
			<i>Neomysis americana</i>	ES		
			<i>Taphromysis bowmani</i>	ES/FW	Y	
Crustacea	Amphipoda	Haustoriidae	<i>Acanthohaustorius millsii</i>	ES		
			<i>Parahaustorius</i> sp.	ES		
			<i>Protohaustorius wigleyi</i>	ES		
			<i>Pseudohaustorius borealis</i>	ES		
Crustacea	Amphipoda	Ampeliscidae	<i>Ampelisca abdita</i>	ES		
			<i>Ampelisca cristata</i>	ES		
			<i>Ampelisca declivitatis</i>	ES		
			<i>Ampelisca verrilli</i>	ES		
			<i>Ampelisca</i> sp.	ES		
Crustacea	Amphipoda	Amphilochoidea	<i>Amphilochus neopolitanus</i>	MA		
			<i>Gitanopsis laguna</i>	MA		
			<i>Gitanopsis</i> sp.	MA		
Crustacea	Amphipoda	Argissidae	<i>Argissa hamatipes</i>	ES		
Crustacea	Amphipoda	Bateidae	<i>Batea</i> sp.	ES		
Crustacea	Amphipoda	Corophiidae	<i>Apocorophium lacustre</i>	ES/FW		Formerly <i>Corophium lacustre</i>
			<i>Apocorophium louisianum</i>	ES		
			<i>Cerapus benthophilus</i>	ES		
			<i>Cerapus</i> sp.	ES		
			<i>Corophium ascherisicium</i>	ES		
			<i>Corophium</i> sp.	ES		
			<i>Erichthonius brasiliensis</i>	ES		
			<i>Monocorophium insidiosum</i>	ES		
Crustacea	Amphipoda	Crangonycidae	<i>Crangonyx richmondensis</i>	ES		

Major Taxon (Phylum, Class, Order)	Intermediate Taxon (Class, Order, Family)	Family/Subfamily	Genus & Species	Habitat	Occurs in Springs/Runs	Notes
			<i>Crangonyx</i> sp.	ES/FW		
			<i>Synurella</i> sp.	ES/FW		
Crustacea	Amphipoda	Ampithoidae	<i>Cymadusa</i> sp. complex	ES		
Crustacea	Amphipoda	Gammaridae	<i>Bemlos setosus</i>	ES		Formerly <i>Gammarus setosus</i> ??
			<i>Dulichella appendiculata</i>	ES		
			<i>Elasmopus levis</i>	ES		
			<i>Elasmopus</i> sp.	ES		
			<i>Gammarus mucronatus</i> complex	ES	Y	
			<i>Gammarus palustris</i>	ES		
			<i>Gammarus tigrinus</i>	ES	Y	
			<i>Gammarus</i> sp.	ES/FW	Y	
			<i>Melita nitida</i>	ES		
Crustacea	Amphipoda	Aoridae	<i>Rudilemboides naglei</i>	ES		Former genus <i>Acuminodeutopus</i> ?
			Aoridae sp.	ES		
			<i>Grandidierella bonnieroides</i>	ES	Y	
			<i>Lembos</i> sp.	ES		
Crustacea	Amphipoda	Hyaellidae	<i>Hyaella azteca</i> complex	FW	Y	
Crustacea	Amphipoda	Liljeborgiidae	<i>Listriella barnardi</i>	ES		
			<i>Listriella clymenellae</i>	ES		
			<i>Listriella</i> sp.	ES		
Crustacea	Amphipoda	Oedicerotidae	<i>Americhelidium americanum</i>	ES		Formerly <i>Synchelidium americanum</i> ?
			<i>Amerocolodes edwardsi</i>	ES		Formerly <i>Monocolodes edwardsi</i> ?
			<i>Hartmanodes nyei</i>	ES		Formerly <i>Monocolodes nyei</i> ?
			<i>Monocolodes</i> sp.	ES		No longer valid genus ?
Crustacea	Amphipoda	Talitridae	<i>Orchestia uhleri</i>	ES/FW		
Crustacea	Amphipoda	Phoxocephalidae	<i>Metaphoxus</i> sp.	MA/ES		Questionable record; European/Pacific distribution
			<i>Trichophoxus floridanus</i>	MA/ES		Questionable record; deepwater species
			Phoxocephalidae sp.	MA/ES		Questionable record; deepwater species
Crustacea	Amphipoda	Photidae	<i>Photis pugnator</i>	ES		
			<i>Photis</i> sp.	ES		
Crustacea	Amphipoda	Stenothoidae	<i>Stenothoe gallensis</i>	ES		
Crustacea	Amphipoda	Megalurotidae	<i>Gibberosus myersi</i>	ES		
Crustacea	Amphipoda	Lysianassidae	<i>Shoemakerella cubensis</i>	ES		
Crustacea	Isopoda	Anthuridae	<i>Amakusanthura magnifica</i>	ES		
			<i>Cyathura burbanki</i>	ES		Not listed in Camp et al. 1998
			<i>Cyathura polita</i>	ES/FW	Y	
			<i>Ptilanthura tenuis</i>	ES		
Crustacea	Isopoda	Asellidae	<i>Caecidotea racovitzai australis</i>	FW	Y	
			<i>Caecidotea</i> sp.	FW/ES	Y	



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			<i>Lirceus lineatus</i>	FW	Y	
Crustacea	Isopoda	Sphaeromatidae	<i>Cassidinidea lunifrons</i>	ES		Not listed in Camp et al. 1998
			<i>Cassidinidea ovalis</i>	ES/FW	Y	
			<i>Paracerceis caudata</i>	ES		
			<i>Sphaeroma quadridentatum</i>	ES		
			<i>Sphaeroma terebrans</i>	ES		Synonymous with <i>Sphaeroma destructor</i>
			<i>Sphaeroma</i> sp.	ES/FW		
Crustacea	Isopoda	Chaetiliidae	<i>Chiridotea almyra</i>	ES		Not listed in Florida in Camp et al. 1998
			<i>Chiridotea caeca</i>	ES		Not listed in Florida in Camp et al. 1998
			<i>Chiridotea stenops</i>	ES		Not listed in Florida in Camp et al. 1998
			<i>Chiridotea</i> sp.	ES		
Crustacea	Isopoda	Idoteidae	<i>Edotia triloba</i>	ES		Synonymous with <i>Edotia montosa</i>
			<i>Erichsonella attenuata</i>	ES		
Crustacea	Isopoda	Munnidae	<i>Uromunna reynoldsi</i>	ES/FW	Y	
Crustacea	Isopoda	Hyssuridae	<i>Xenanthura brevitelson</i>	ES		
Crustacea	Decapoda	Sergestidae	<i>Acetes americanus caroline</i>	MA/ES		
Crustacea	Decapoda	Penaeidae	<i>Farfantepenaeus aztecus</i>	ES/MA		Commercially harvested
			<i>Farfantepenaeus duorarum</i>	ES/MA		Commercially harvested
			<i>Litopenaeus setiferus</i>	ES/MA		Commercially/recreationally harvested
			<i>Metapenaeopsis goodei</i>	MA/ES		
Crustacea	Decapoda	Hippolytidae	<i>Latreutes fucorum</i>	MA		
Crustacea	Decapoda	Luciferidae	<i>Lucifer faxoni</i>	ES/MA		
Crustacea	Decapoda	Ogyrididae	<i>Ogyrides alphaerostris</i>	ES		Synonymous with <i>O. limicola</i>
			<i>Ogyrides hayi</i>	ES/MA		
Crustacea	Decapoda	Palaemonidae	<i>Palaemonetes intermedius</i>	ES		
			<i>Palaemonetes kadiakensis</i>	FW		
			<i>Palaemonetes paludosus</i>	FW	Y	
			<i>Palaemonetes pugio</i>	ES		
			<i>Palaemonetes vulgaris</i>	ES/FW	Y	
			<i>Periclimenes longicaudatus</i>	ES		
Crustacea	Decapoda	Processidae	<i>Processa hemphilli</i>	ES/MA		
Crustacea	Decapoda	Alpheidae	<i>Alpheus heterochaelis</i>	ES		
			<i>Alpheus viridari</i>	ES		
Crustacea	Decapoda	Portunidae	<i>Callinectes ornatus</i>	ES/MA		
			<i>Callinectes sapidus</i>	ES/MA	Y	Commercially/recreationally harvested
			<i>Callinectes similis</i>	ES/MA		
			<i>Callinectes</i> sp.	ES		
			<i>Portunus gibbesii</i>	ES/MA		
			<i>Portunus sayi</i>	ES/MA		

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Crustacea	Decapoda	Goneplacidae	<i>Euryplax nitida</i>	MA/ES		
Crustacea	Decapoda	Pinnotheridae	<i>Pinnixa chaetoptera</i>	ES/MA		
			<i>Pinnixa cylindrica</i>	ES/MA		
			<i>Pinnixa</i> sp.	ES/MA		
Crustacea	Decapoda	Xanthidae	<i>Dyspanopeus texana texana</i>	ES		Formerly <i>Neopanope texana</i> ?
			<i>Eurypanopeus depressus</i>	ES/MA		
			<i>Eurytium limosum</i>	ES		
			<i>Menippe mercenaria</i>	MA/ES		Commercially harvested
			<i>Panopeus herbstii</i> complex	ES/MA		
			<i>Rhithropanopeus harissii</i>	ES/FW		
Crustacea	Decapoda	Ocypodidae	<i>Uca pugilator</i>	ES/MA		
			<i>Uca pugnax</i>	ES		
			<i>Uca minax</i>	ES/FW		Does it occur in the basin ? Known to occur regionally
Crustacea	Decapoda	Grapsidae	<i>Sesarma (Amrases) cinereum</i>	ES		Does it occur in the basin ? Known to occur regionally
			<i>Sesarma reticulatum</i>	ES		Does it occur in the basin ? Known to occur regionally
Crustacea	Decapoda	Majidae	<i>Libinia dubia</i>	ES		
Crustacea	Decapoda	Callianassidae	<i>Callianassa atlantica</i>	ES		
Crustacea	Decapoda	Upogebiidae	<i>Upogebia</i> sp.	ES		
Crustacea	Decapoda	Diogenidae	<i>Clibanarius vittatus</i>	ES/MA		
Crustacea	Decapoda	Paguridae	<i>Pagurus longicarpus</i>	ES		
			<i>Pagurus pollicaris</i>	ES		
			<i>Pagurus</i> sp.	ES		
Crustacea	Decapoda	Porcellanidae	<i>Petrolisthes armatus</i>	ES		Exotic ?
Crustacea	Decapoda	Cambaridae	<i>Procambarus advena</i>	FW	Y	
			<i>Procambarus alleni</i>	FW		
			<i>Procambarus fallax</i>	FW	Y	
			<i>Procambarus geodytes</i>	FW	Y	Endemic to SJR drainage
			<i>Procambarus paeninsulanus</i>	FW	Y	
			<i>Procambarus pictus</i>	FW		Endemic to Black Creek/SJR drainage
			<i>Procambarus pubischelae</i>	FW		
			<i>Procambarus seminolae</i>	FW		
			<i>Procambarus spiculifer</i>	FW	Y	Generally confined to springs/spring runs
Crustacea	Stomatopoda	Squillidae	<i>Squilla empusa</i>	ES/MA		
Crustacea	Ostracoda		<i>Eusarsiella cornuta</i>	ES/MA		
			<i>Eusarsiella disparalis</i>	ES/MA		
			<i>Eusarsiella elofsoni</i>	ES/MA		
			<i>Eusarsiella texana</i>	ES/MA		

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Crustacea	Cirripedia		<i>Balanus amphitrite</i>		ES	
			<i>Balanus eburneus</i>		ES	
			<i>Balanus improvisus</i>		ES	
			<i>Balanus</i> sp.		ES	
			<i>Chthamalus fragilis</i>		ES	
Echinodermata	Asteroidea		<i>Luidia clathrata</i>		ES	
Echinodermata	Ophiuroidea		Amphiuridae sp.		ES	
			<i>Hemipholis elongata</i>		ES	
			Ophiomyxidae sp.		ES	
			<i>Ophiophragmus wurdemani</i>		ES	
			<i>Ophiothrix angulata</i>		ES	
Echinodermata	Holothuroidea		<i>Leptosynapta tenuis</i>		ES	
			<i>Thyone</i> sp.		ES	species " <i>briatus</i> " not listed in Camp et al. 1998
Bryozoa			<i>Bugula</i> sp.		ES	
			<i>Membranipora tenuis</i>		ES	
			<i>Pectinatella magnifica</i>		FW	
			<i>Plumatella bushnelli</i>		FW	
			<i>Plumatella casmiana</i>		FW	
			<i>Plumatella vaihiriae</i>		FW	
			<i>Plumatella</i> sp.		FW	
		<i>Urnatella gracilis</i>		FW		
Phoronida			<i>Phoronis architecta</i>		ES/MA	
Sipuncula			<i>Phascolion strombi</i>		ES	
			<i>Sipuncula</i> sp.		ES	
Chordata			Asciacea sp.		ES	
			<i>Branchiostoma caribaeum</i>		ES/MA	

**TOTAL NUMBER OF TAXA****1063**

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