

PHWH STREAM BIOLOGICAL CHARACTERISTICS FIELD SHEET:

1. Fish: Voucher Specimens Retained? (select)  Time Spent (minutes):   
 Sample Method No Evaluation Stream Length Assessed (meters)

Species	Number Caught	Notes
Blank	<input type="text" value="0"/>	<input type="text"/>
Blank	<input type="text" value="0"/>	<input type="text"/>
Blank	<input type="text" value="0"/>	<input type="text"/>
Blank	<input type="text" value="0"/>	<input type="text"/>
<input type="text"/>	<input type="text" value="0"/>	<input type="text"/>
<input type="text"/>	<input type="text" value="0"/>	<input type="text"/>
<input type="text"/>	<input type="text" value="0"/>	<input type="text"/>
<input type="text"/>	<input type="text" value="0"/>	<input type="text"/>

2. Salamanders: Voucher Specimens Retained? (circle)  Time Spent (minutes):   
 Sample Method No Evaluation Stream Length Assessed (meters)

Species (Genus)	# Larvae	# Juveniles/Adults	Total Number
Mountain Dusky ( <i>Desmognathus ochrophaeus</i> )	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Northern Dusky ( <i>Desmognathus fuscus</i> )	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Two-lined ( <i>Eurycea bislineata</i> )	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Long-tailed ( <i>Eurycea longicauda</i> )	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Cave ( <i>Eurycea lucifuga</i> )	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Red ( <i>Pseudotriton ruber</i> )	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Mud ( <i>Pseudotriton montanus</i> )	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Spring ( <i>Gyrinophilus porphyriticus</i> )	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Mole spp. ( <i>Ambystoma spp.</i> )	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Four-toed ( <i>Hemidactylum scutatum</i> )	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Other (name) <input type="text"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
<b>Total</b>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

Notes on Vertebrates:

### 3. Macroinvertebrate Scoring Sheet:

#### THE HEADWATER MACROINVERTEBRATE FIELD EVALUATION INDEX (HMFEI) SCORING SHEET

Indicate Abundance of Each Taxa Above each White Box.

Record HMFEI Scoring Value Points Within each Box.

For EPT taxa, also indicate the different taxa present.

**Key:** V = Very Abundant (> 50); A = Abundant (10 -50); C = Common (3 -9); R = Rare (< 3)

Sessile Animals (Porifera, Cnidaria, Bryozoa) (HMFEI pts = 1)	<input type="text" value="NA"/> <input type="text" value="0"/>	Crayfish (Decapoda) (HMFEI pts = 2)	<input type="text" value="NA"/> <input type="text" value="0"/>	Fishfly Larvae (Corydalidae) (HMFEI pts = 3)	<input type="text" value="NA"/> <input type="text" value="0"/>
Aquatic Worms (Turbellaria, Hirudinea, Oligochaeta) (HMFEI pts = 1)	<input type="text" value="NA"/> <input type="text" value="0"/>	Dragonfly Nymphs (Anisoptera) (HMFEI pts = 2)	<input type="text" value="NA"/> <input type="text" value="0"/>	Water Penny Beetles (Psephenidae) (HMFEI pts = 3)	<input type="text" value="NA"/> <input type="text" value="0"/>
Sow Bugs (Isopoda) (HMFEI pts = 1)	<input type="text" value="NA"/> <input type="text" value="0"/>	Riffle Beetles (Dryopidae, Elmidae, Ptilodactylidae) (HMFEI pts = 2)	<input type="text" value="NA"/> <input type="text" value="0"/>	Cranefly Larvae (Tipulidae) (HMFEI pts = 3)	<input type="text" value="NA"/> <input type="text" value="0"/>
Scuds (Amphipoda) (HMFEI pts = 1)	<input type="text" value="NA"/> <input type="text" value="0"/>	Larvae of other Flies (enter name in comments) (Diptera): (HMFEI pts = 1)	<input type="text" value="NA"/> <input type="text" value="0"/>	EPT TAXA* Total No. EPT Taxa = <input type="text" value="0"/>	
Water Mites (Hydracarina) (HMFEI pts = 1)	<input type="text" value="NA"/> <input type="text" value="0"/>	Midges (Chironomidae) (HMFEI pts = 1)	<input type="text" value="NA"/> <input type="text" value="0"/>	Mayfly Nymphs (Ephemeroptera) Taxa Present: <input type="text" value="0"/> HMFEI pts = <input type="text" value="NA"/> <input type="text" value="0"/> No. Taxa (x) 3]	<input type="text" value="NA"/> <input type="text" value="0"/>
Damselfly Nymphs (Zygoptera) (HMFEI pts = 1)	<input type="text" value="NA"/> <input type="text" value="0"/>	Snails (Gastropoda) (HMFEI pts = 1)	<input type="text" value="NA"/> <input type="text" value="0"/>		
Alderfly Larvae (Sialidae) (HMFEI pts = 1)	<input type="text" value="NA"/> <input type="text" value="0"/>	Clams (Bivalvia) (HMFEI pts = 1)	<input type="text" value="NA"/> <input type="text" value="0"/>	Stonefly Nymphs (Plecoptera) Taxa Present: <input type="text" value="0"/> HMFEI pts = <input type="text" value="NA"/> <input type="text" value="0"/> No. Taxa (x) 3]	<input type="text" value="NA"/> <input type="text" value="0"/>
Other Beetles (Coleoptera) (HMFEI pts = 1)	<input type="text" value="NA"/> <input type="text" value="0"/>	Other Taxa : <input type="text"/>			
Other Taxa: <input type="text"/>		Other Taxa: <input type="text"/>		Caddisfly Larvae (Trichoptera) Taxa Present: <input type="text" value="0"/> HMFEI pts = <input type="text" value="NA"/> <input type="text" value="0"/> No. Taxa (x) 3]	<input type="text" value="0"/>
Other Taxa: <input type="text"/>		Other Taxa <input type="text"/>			

\*Note: EPT identification based upon Family or Genus level of taxonomy

Voucher Sample ID  Time Spent (minutes):

Notes on Macroinvertebrates: (Predominant Organisms; Other Common Organisms; Diversity Estimate)

  
  


Final HMFEI Calculated Score (Sum of All White Box Scores) =

IF Final HMFEI Score is > 19, Then CLASS III PHWH STREAM  
 IF Final HMFEI Score is 7 to 19, Then CLASS II PHWH STREAM  
 IF Final HMFEI Score is < 7, Then CLASS I PHWH STREAM