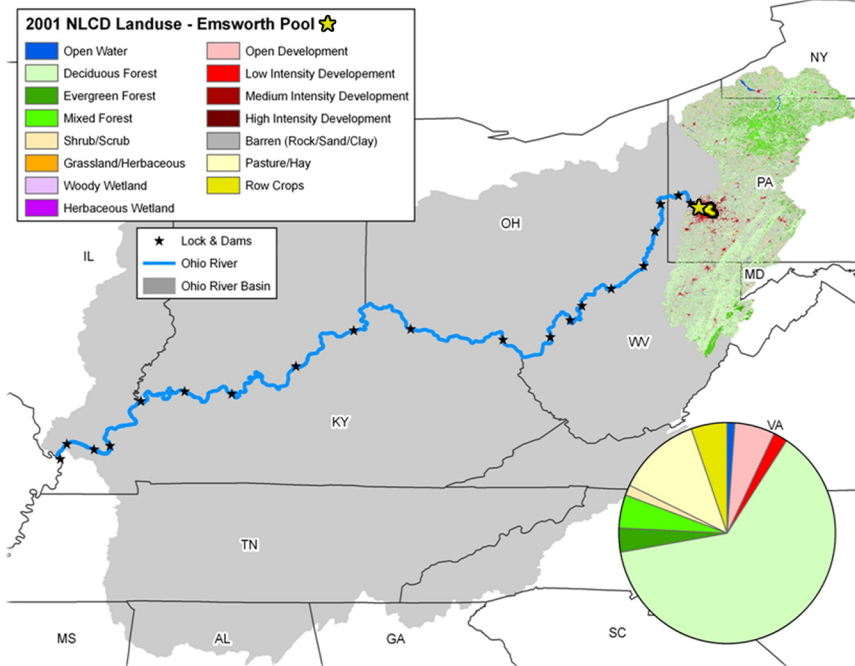


Emsworth Pool - 2012

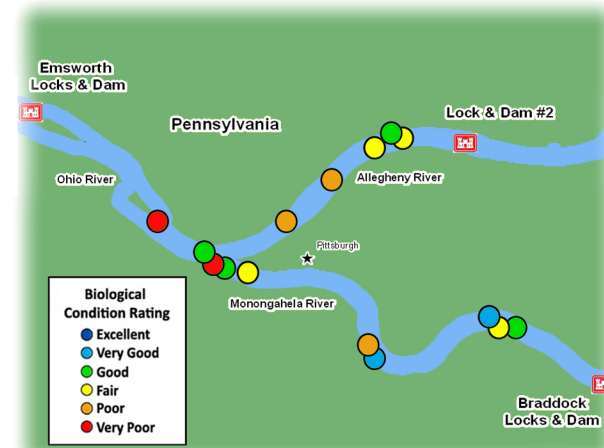
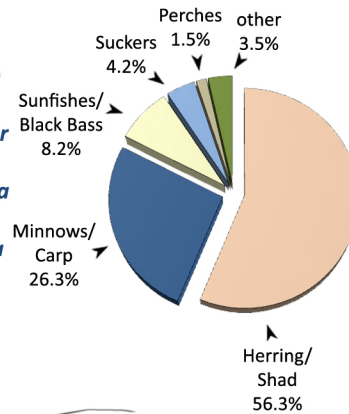
Emsworth Locks and Dam is the first lock system on the Ohio River below the confluence of the Allegheny and Monongahela rivers. The main stem portion of the pool is 6.2 miles long, extending from Pittsburgh Point (ORM 0.0) to Emsworth Locks and Dam (ORM 6.2). For the purpose of our biological assessment we extended this area beyond the confluence upstream to the first dams on the Allegheny (6.2 miles) and Monongahela rivers (11.2 miles). The pool averages 1,456 feet wide and 21 feet deep (ORSANCO 1994). The entirety of the pool lies in Pennsylvania, in an area where the immediate land use consists of residential and industrial development (9.2%). However, the larger area draining into the pool is largely forested (68.9%) with some agricultural uses (17.3%). The shorelines of the main stem portion of Emsworth is highly modified to inhibit erosion; the tributaries are also modified, but to a lesser extent.



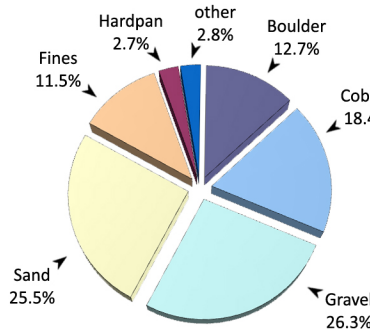
Land-use types within the Emsworth Pool watershed



walleye (*Sander vitreus*)



Locations of the 15 randomly chosen electrofishing sites in Emsworth Pool



smallmouth bass (*Micropterus dolomieu*)

Site Performance

Site No.	River Mile	Habitat Class	ORFIn Exp	ORFIn Obs	mORFIn Score
1	ALL 5.2	B	46.71	52.98	27.5
2	ALL 5.2	A	50.03	56.48	30.8
3	ALL 4.6	D	41.80	42.97	21.5
4	ALL 3.3	C	44.55	39.81	16.7
5	ALL 1.8	B	46.71	45.00	18.1
6	MON 8.7	D	46.71	63.09	44.9
7	MON 8.2	C	44.55	47.52	23.9
8	MON 8.1	A	50.03	67.50	44.9
9	MON 5.1	A	50.03	71.21	48.7
10	MON 4.8	C	44.55	39.11	16.2
11	MON 0.8	B	46.71	53.33	27.9
12	MON 0.3	A	50.03	56.09	30.2
13	OH 0.1	B	46.71	31.43	7.2
14	OH 0.4	C	44.55	55.75	34.0
15	OH 1.7	A	50.03	33.22	7.2
Average Pool mORFIn Score					26.6

Emsworth Pool - Results Overview

Sampling Results

Environmental Measures

Dominant Habitat Class: A - dominated by coarse substrates
Notable Measures: Marinas/docks and recreational uses dominate stretches of the "Three Rivers" area

Biological Measures

Total No. of Fish Species: 46
Average No. of Individuals: 108
Dominant Family (*minus herring/shad*): Minnows/Carp
Dominant Species (*minus shad/shiners*): smallmouth bass
Threatened and Endangered Species: mooneye & longear sunfish
Rare Ohio River Mainstem Species: streamline chub
Notable Catch: large ornamental common carp (a.k.a. "koi")

Assessment Results

Highest scoring ORFIn metric (*minus DELTs*): Centrarchid Species
Lowest scoring ORFIn metric: Great River Species
Sites Above 25th percentile (i.e. mORFIn Score = 20): 11
Sites Below 25th percentile (i.e. mORFIn Score = 20): 4
Aquatic Life-Use Designation: Met

Overall Biological Condition Rating: Fair