

# NEW CUMBERLAND (2017) - HEALTHY CONDITION

## DOMINANT MACRO GROUPS



MUSSELS 40.6%



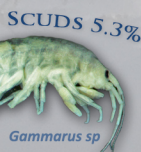
MIDGES 25.4%



MAYFLIES 7.3%



SNAILS 5.5%



SCUDS 5.3%

BOULDER 7.2%

COBBLE 14.6%

GRAVEL 23.4%

SAND 23.0%

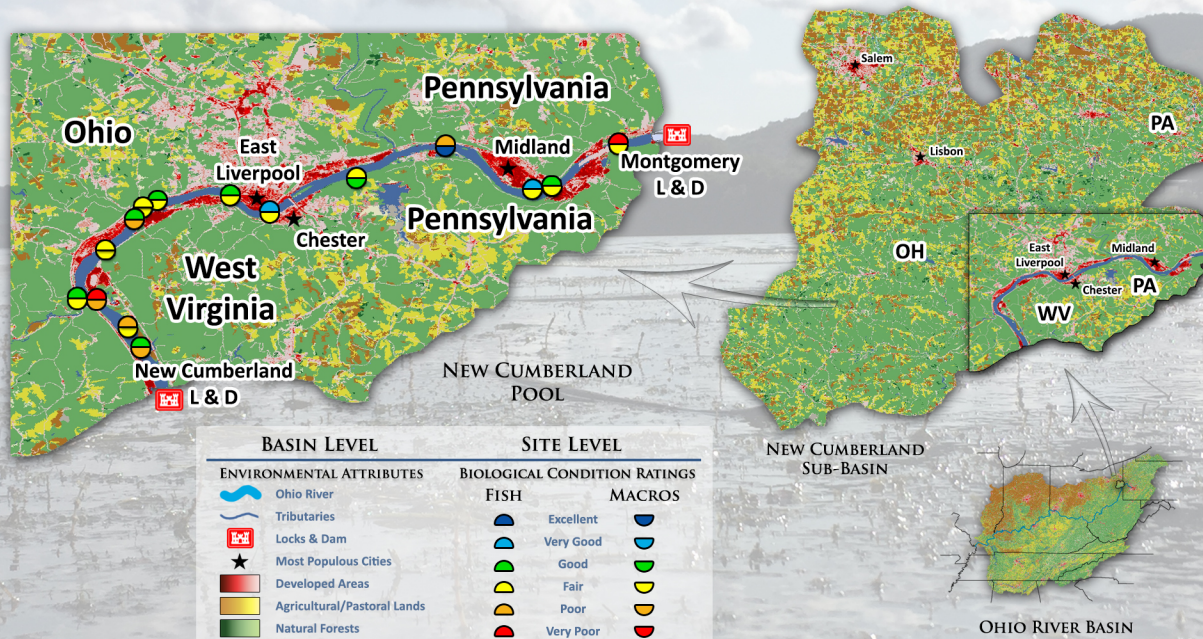
FINES 26.9%

HARDPAN 3.3%

OTHER 1.5%

## POOL SUBSTRATE COMPOSITION

This page summarizes the 2017 fish and macroinvertebrate (macro) surveys conducted by ORSANCO biologists in the New Cumberland Pool of the Ohio River. Fish are collected via non-lethal electrofishing in the summer. Macros are collected in the fall from artificial substrate samplers placed in the water in late summer. The New Cumberland pool is 22.7 miles long, extending from Montgomery Locks and Dam (ORM 31.7) to New Cumberland Locks and Dam (ORM 54.4). The pool has a gradient drop of 0.2 feet per mile, averages 1,439 feet wide and 22 feet deep. The pool flows within the state of Pennsylvania for the upper nine miles and is bordered by Ohio and West Virginia for the remaining 13.7 miles. Though the pool has few major metropolitan areas (East Liverpool, OH), New Cumberland lies in a portion of the Ohio River heavily influenced by industry and is just 31.7 miles below the city of Pittsburgh. The New Cumberland Pool receives water from two small tributaries: Little Beaver Creek and Yellow Creek. The pool's watershed is primarily forested with some agricultural land use (crops and pasture), but also has significant urban influences. In unmodified sections of the pool the shoreline largely consists of coarse substrates.



## AQUATIC INVASIVES WATCH



## SURVEY SUMMARY

Electrofishing sampling occurred almost entirely in one week of July and extended partially into early August. Submerged aquatic vegetation was observed at all sites with invasive Hydrilla and Eurasian Water Milfoil observed at over 90% of sites. However, we do not believe this negatively affected the quality of sampling. Notable catches include numerous Channel Shiners (*Notropis wickliffi*), the Ohio state threatened Channel Darter (*Percina copelandi*) and species of special concern River Redhorse (*Moxostoma carinatum*). Additionally, the invasive Eastern Banded Killifish (*Fundulus diaphanus diaphanus*) was found likely due to the increase in invasive vegetation. Notable macroinvertebrate collections include a high percentage of invasive mussels (*Dreissena polymorpha*) and pollution intolerant mayflies (*Stenacron sp.*). Non-native filter-feeding scuds (*Apocorophium lascastre*) were also present. Independent biological indices were used to apply numeric values to important components of fish and macro assemblages and assess their relative status. The results (see above map) show that, on average, fish in New Cumberland Pool were in 'Fair' condition and the macros were in 'Fair' condition. Overall, while these results indicate that New Cumberland Pool harbored healthy aquatic communities, close attention will be paid to both assemblages in the future for signs of chronic degradation.

## DOMINANT FISH FAMILIES



MINNOWS 46.7%



SUNFISH & BASS 22.2%



SUCKERS 15.2%



PERCHES 4.7%



SHAD 2.3%

OTHER 1.5%



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