

The Diversity of Fish in Cikaniki River, Bogor Regency

Mia Azizah

Department of Biology, Nusa Bangsa University

This study aims to obtain a Fish Species Diversity Index and a correlation between fish species diversity and environmental factors

Changes in the aquatic environment, for example in the watershed affect the composition and diversity of the population of the class. Declining water quality will reduce the wealth of natural resources of these waters. The presence of foreign objects that cause the water cannot be used in accordance with its designation is normally referred to as water pollution. The study was carried out for 4 months, starting from March - July 2019 on the Cikaniki river which is included in the Halimun Salak Mountain National Park (TNGHS) Nanggung District, Bogor Regency. Sampling was done at 5 points with each point done 3 times sampling.

Table 1. Fish Species Diversity in the Cikaniki River

No	Family	Spesies	Stasiun					Total
			St 1	St 2	St 3	St 4	St 5	
1	Balitoridae	<i>Nemacheilus chrysolaimos</i>	3	15	20	6	6	50
2	Cyprinidae	<i>Puntius binotatus</i>	4	14	13	10	3	44
3	Sisoridae	<i>Glyptothorax platypogon ides</i>	1	1	4	4	3	13
4	Channidae	<i>Channa striata</i>	4	1	3	2	2	12
5	Clariidae	<i>Clarias batrachus</i>			8	1		9
6	Poecillidae	<i>Poecilia reticulata</i>	3		1			4
7	Synbranchidae	<i>Monopterus albus</i>	1		1		1	3
Number of Individuals			16	31	50	23	15	135

Table 2. The Diversity Index, Evenness Index and Dominance Index for each station

NO	Station	H'	E	C
1	Upstream	1,67	0,93	0,20
2	Illegal Maners	0,93	0,52	0,44
3	PT. ANTAM	1,53	1,58	0,26
4	Irrigation Channels	1,36	0,71	0,29
5	Downstream	1,45	1,83	0,26

Results of species diversity index ranged from 0.08 to 0.36. Species with the highest diversity index are *Nemachillus chrysolaimos* and *Puntius binotatus* while the lowest fish species are *Monopterus albus* with a value of H' 0.08. there is activity of Miners illegal. The highest Evenness Index is found in Observation Station 3, which is the PT Antam Mine area while Observation Station 2 has the lowest Evenness Index. The types of fish that dominate the Cikaniki River are *Nemachillus chrysolaimos*, and *Puntius binotatus*. Downstream area (station 5) is the area with the highest level of dominance.



Based on the results of the Bioenv analysis, the most influential environmental factors on fish diversity in the Cikaniki River, Bogor Regency are Temperature, BOD and TSS. These three factors also always appear in every variation of correlation analysis. The highest correlation value that appears is 0.785, the figure shows a very strong correlation between diversity of fish with environmental factors temperature, BOD and TSS.

Conclusion

Based on the results of the study it can be concluded that in the Cikaniki River Stream there are 135 individual fish found, divided into 7 species and have moderate diversity. The most influential environmental factors for fish diversity include Temperature, Biological Oxygen Demand and Total Solid Suspend. The advice that can be done is to measure the level of heavy metal content in fish found on the Cikaniki River.

