

have a specific host and is cosmopolitan so that it can infect all types of fish. *Transversotrema* has the lowest value of 1.31% including the occasional category which means the infection rate is sometimes. *Transversotrema* has a long enough time to breed.

The highest prevalence value is found in goldfish (Figure 3), which is 100% including the category that always means very severe infection. This was presumably because the carp examined were in the form of 8-10 cm (ngaramo) seeds so they had low body resistance so they were easily attacked by ectoparasites. The larger the size of the fish, the better the fish's immune system, so that the condition of the body's resistance of seed-sized fish is still weak and very susceptible to environmental changes so that they are more susceptible to parasites (Novy 2015). In addition, goldfish are not specific hosts for ectoparasites, making the prevalence value large.

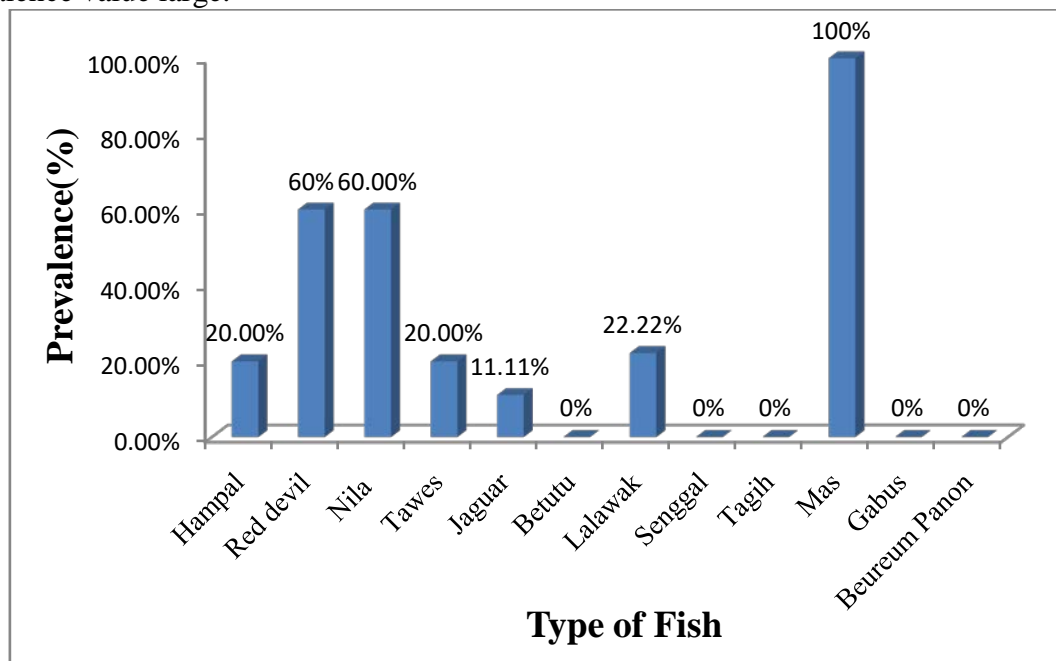


Figure 3. Ectoparasite prevalence per fish species in Jatigede reservoir 2019

Senggal, Billy, Gabus, Betutu, and Beureum Panon fish have the lowest intensity value of 0 or are not infected with ectoparasites. This happens because the number of these fish is very rarely found in the waters of the Jatigede Reservoir so that the possibility of infection is small.

3.6 Water Quality of Jatigede Reservoir

The results of observations of water quality parameters in the Jatigede Reservoir are still good enough to be used for fish life, as can be seen in Table 8.

Table 8. Parameter kualitas air di Waduk Jatigede

Parameter	Unit	Take-up				Average
		1	2	3	4	
Temperature	°C	28,0	27,5	26,3	27,0	27,2
pH	-	7,5	7,24	7,6	7,53	7,47
DO	mg/L	6,2	6,1	4,0	6,0	5,6
BOD	mg/L	4,0	5,6	5,1	4,4	4,8
Ammonia	mg/L	0,185	0,352	0,287	0,417	0,310

3.6.1 Temperature

The average temperature of the Cimanuk river at 09.30 WIB tends to be cold at 27°. The safe temperature for fish ranges from 23°-29°C with an optimum temperature of 24°C (Asdak 2007, Rahardjo et al. 2011).

3.6.2 pH

The average pH of the waters of the Jatigede Reservoir is 7.47, which is normal for fish life. If the pH 4 will not grow well and 10 will cause death (S. Amirullah et.al 2012).

3.6.3 Dissolved Oxygen (DO)

The average value of Dissolved Oxygen (DO) is 5.6 mg/L which indicates that it is still quite good. This is by Baihaqi's research (2016), the DO content in the Jatigede Reservoir ranges from 5.1-5.9 mg/L and meets the DO value requirements for class II and class III water quality standards.

3.6.4 Biochemical Oxygen Demand (BOD)

The average Biochemical Oxygen Demand (BOD) is 4.8 mg/L, which is water with light-polluted criteria. The high BOD value is because the waters of the Jatigede Reservoir have been polluted.

3.6.5 Ammonia

The average ammonia level in Jatigede Reservoir is 0.310 mg/L, which means the waters are still good for fish development because according to research by Baihaqi (2016), ammonia levels of 0.55 mg/L will cause fish growth to be disrupted and even to death.

3. CONCLUSIONS

The water quality of Jatigede Reservoir is still quite good and still suitable for fish life compared to other reservoirs in West Java such as Jatiluhur, Cirata, and Saguling Reservoirs. The results of Pigoselpi's research (2017) show that the water quality status of the Jatiluhur reservoir based on "UA-EPA" is moderately polluted, almost heavily polluted with a value of -30 class C. The results of Soetrisno's research (2011) state that the waters of the Cirata Reservoir have been eutrophicated because they are polluted by nutrients from various waste sources.

References

- [1] Ade Irma Sari, Muhammad Idris, and Indriyani Nur. 2019. Inventory of Parasites (*Oreochromis niloticus*) in Nile Tilapia Live in Former Mining Pond of Watu-watu Village, Lantari Jaya District, Bombana Regency. *Journal of Aquatic Media, Vol.4, No.3. Aquaculture Study Program, Faculty of Fisheries and Marine Sciences*. Halu Oleo University.
- [2] Akbar Junius. 2011. Identification of Parasites in Betok Fish. *Bioscience: Journal of the Biological Sciences. Vol.8, No.2*. Department of Aquaculture, Faculty of Fisheries. Lampung Mangkurat University.
- [3] Amirullah, S., Y. Dhahiyat., I. Rustikawati. 2012. Intensity and Prevalence of Ectoparasites in Fish in the Upper Cimanuk River, Garut Regency, West Java. *Journal of Fisheries and Marine Vol.3 No.4*. Faculty of Fisheries and Marine Science. Padjadjaran University.

- [4] Andani, A., T. Herawati, Zahidah, H. Hamdani. 2017. Identification and Inventory of Adaptable Fish in the Jatigede Reservoir at the Early Inundation Stage. *Journal of Fisheries and Marine Vol. VIII No. 2*. Faculty of Fisheries and Marine Sciences. Padjadjaran University.
- [5] Artim, J.M., P.C. cycle. 2016. Comparison of Sampling Methodologies and Estimation of Population Parameters for a Temporary Fish Ectoparasite. *International Journal for Parasitology: Parasites and Wildlife 5*.
- [6] Baihaqi, A. H. 2016. Evaluation of Water Quality Feasibility for Fisheries Activities in Jatigede Reservoir in the Early Inundation Stage. *Essay*. Faculty of Fisheries and Marine Science. Padjadjaran University. Jatinangor.
- [7] Costa-Pierce, B. A. O., Soemarwoto., C. M. Roem., T. Herawati. 1990. *water quality Suitability of Saguling and Cirata Reservoirs for Development of Floating Net Cage Aquaculture Development for Resettlement in Indonesia*. PLN/IOE/ICLARM.
- [8] Damanik, A., 2005, Halal Gelatin Haram Gelatin. *Journal of LP POM MUI. No. March 36, 2001*. Jakarta.
- [9] Krismono. 1992. Research on Potential Water Resources of Wadaslintang, Mrica, Karangates, and Selorejo Reservoirs for Fish Cultivation in Floating Net Cages. *Inland Fisheries Research Bulletin. Vol. II No. 2*.
- [10] M. Syukran, Sayyid, A.E.R., & Silvia, W. 2017. Intensity and Prevalence of Ectoparasites on Betta Fish (*Betta splendens*) in the District of Aceh Besar and Banda Aceh City Waters. *Scientific Journal of Marine and Fisheries Students Unsyiah. Vol.2 No.1*. Aceh Darussalam Fisheries, Banda Aceh.
- [11] Novita, D., Teuku, R., Ferasyi, & Zainal, A. 2016. Intensity and Prevalence of Ectoparasites in Banana Shrimp (*Penaues sp*) from Aquaculture Ponds on the West Coast of Aceh. *Scientific Journal of Marine and Fisheries Students Unsyiah Vol.1, No.3*. Syiah Kuala University.
- [12] Purnamaningtyas S.E and Tahjo. 2013. Eating Habits and Niche Areas of Several Types of Fish in Djuanda Reservoir, West Java. *Journal of Bawal Vol., No.3*. Jatiluhur Fish Resource Recovery and Conservation Research Institute. Purwakarta. West Java.
- [13] Rahman Ali. 2016. Flow Analysis in the Upper Cimanuk River Basin (Cimanuk-Bojongloa Garut Case Study). *Journal of Construction Vol 14 No.1*. Garut High School of Technology. arrowroot.
- [14] The Republic of Indonesia. 2003. *Decree of the State Minister of the Environment Number 115 of 2003 concerning Guidelines for Determining the Status of Water Quality*. Secretariat of the Cabinet of the Republic of Indonesia. Jakarta.
- [15] The Republic of Indonesia. 2001. *Government Regulation of the Republic of Indonesia Number 82 of 2001 concerning Water Quality Management and Water Pollution Control*. State Secretary. Jakarta.
- [16] Riko, Y.A., Rosidah, & Titin, H. 2012. Intensity and Prevalence of Ectoparasites in Milkfish (*Chanos chanos*) in floating net cages (KjA) in Cirata Reservoir, Cianjur Regency, West Java. *Journal*.
- [17] S. Amirullah, Yayat Dahiyat, and Ike Rustikawati. 2012. Intensity and Prevalence of Ectoparasites in Fish in the Upper Cimanuk River, Garut Regency, West Java. *Journal*

of Fisheries and Marine Vol.3, No.4. Faculty of Fisheries and Marine Science. Padjadjaran University.

- [18] Samsu, A.R., & Admi, A. 2014. Identification and Intensity of Parasites in Banggai Dragonflies (*Pterapogon kaurdernii*). *Indonesian Fisheries National Seminar*. STP Jakarta.
- [19] Septyan, A., & M. Fachri. 2014. Existence of Ectoparasites in Carp (*Cyprinus Carpio*) Raised with Different Percentages of Water Change. *Journal of Aquaculture Media Vol.9, No.2.* Faculty of Agriculture. Brawijaya University.
- [20] Sugiyono. (2012). *Understanding Qualitative Research*. Bandung:ALFABETA.
- [21] Supriyanto K.Ali, Yuniarti Kuniyo, and Mulis. 2013. Identification of Ectoparasites in Tilapia (*Oreochromis niloticus*) in Limboto Lake, Gorontalo Province. *Scientific Journal of Fisheries and Marine Vol 1, No.3.* Faculty of Fisheries and Marine Science. Gorontalo State University.
- [22] The Great Hall of the Cimanuk-Cisanggarung River Area. 2009. *The pattern of Management of the Cimanuk-Cisanggarung River Basin*. Cirebon
- [23] Ulkhaq, M.F., D.S. Budi, G. Mahasri, and Kismiyati. 2017. Identification of Ectoparasites in Goldfish Fry Kabat, Banyuwangi District. *Journal of Veterinary Science Vol.35 No.2.* Faculty of Fisheries and Marine Affairs. Airlangga University. Surabaya.
- [24] Yazid, A.R., Rosidah, & Titin, H. 2012. Intensity and prevalence of ectoparasites in milkfish (*Chanos Chanos*) in floating net cages (Kja) in Cirata Reservoir, Cianjur Regency, West Java. *Journal of Fisheries and Marine Vol.3, No.4.* Faculty of Fisheries and Marine Sciences. Padjadjaran University.