V. CONCLUSIONS AND IMPLICATIONS

A. Conclusions

Based on the current study it can be concluded that only two turtle species were confirmed: *Lepidochelys olivacea* and *Eretmochelys imbricata* out of the four species of sea turtles speculated to inhabit the Turtle Bay of Cilacap. Further analysis of the environmental parameters revealed that Sidaurip Beach stands out as highly conducive for nesting due to its favorable ecological conditions, supporting optimal spawning activities.

B. Implications

Further studies, particularly utilizing eDNA, are recommended for confirming additional species due to its non-invasive nature. This method eliminates the need for the organism's presence, offering potentially high accuracy. Conducting more research in the area would enhance understanding of the local marine biodiversity and contribute to effective conservation strategies.

This study enhances understanding of Turtle Bay's sea turtle populations in Cilacap, Indonesia, contributing to conservation efforts. It was discovered that only SP1 would support male hatchlings, because of its suitable temperature of 28℃. Hence, it would be advisable to transfer some eggs to SP1 for gender balance; although with close monitoring due to the Anthropocene. Perhaps, when there is gender balance, the sustainability of the sea turtles will be ensured and conservation of these hotspot species on Turtle Bay of Cilacap will be achieved.