

ABSTRACT

Ailsa Cahyawati Estiningtyas. 24020221120007. **Molecular Identification of Yeast and Mold Diversity Based on ITS in Rote Turtles (*Chelodina mccordi*) Hatchlings from the Animal Protection Unit of BBKSDA NTT.** Under the guidance of Dr.rer.nat. Anto Budiharjo, S.Si., M.Biotech. and Oki Hidayat, S.Hut., M.Bio.Sc.

The Rote turtle is an endemic species found on Rote Island in East Nusa Tenggara and is classified as Critically Endangered-Possibly Extinct in the Wild (CR-PEW). To help maintain its population, various conservation efforts are being implemented, including repatriation, establishment of captive breeding facilities, and reintroduction programs. One challenge in reintroduction programs with captive breeding facilities is the fluctuating survival rate of hatchlings, likely driven by health factors and exposure to pathogens such as yeast and mold infections. This study aimed to isolate, determine the diversity, and identify yeast and mold in the Rote turtle hatchlings based on macroscopic and microscopic morphology and an ITS-based molecular approach. Samples were collected from skin and carapace *swabs* of Rote turtle hatchlings. The samples were isolated on Potato Dextrose Agar (PDA) media using the spread plate method. Five isolates were successfully obtained, consisting of one yeast isolate (KA1) and four mold isolates (KA4, KA5, KL4, KL5), each of which showed differences in morphological characteristics in colonies, colony color, texture, and body structure. The results of molecular analysis using ITS markers showed that the yeast and mold species were identified as *Pseudozyma hubeiensis*, *Aspergillus flavus*, *Aspergillus aculeatus*, *Penicillium citrinum*, and *Aspergillus japonicus*.

Keywords: *fungi, carapace, skin, rote turtle*