

**SEX DETERMINATION IN CANARY (*Serinus canaria*) BIRD
USING FEATHER (CALAMUS) WITH PCR
(Polymerase Chain Reaction) METHOD.**

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ABSTRACT

Sex determination on monomorphic birds which has no sexual dimorphism would be difficult just by observing their morphological characteristics. Some of the ways that can be used to distinguish the sex of monomorphic birds include using DNA analysis by PCR (polymerase chain reaction). The canary feather samples which has been extracted then amplified by PCR (polymerase chain reaction) using P2 and P8 primer. PCR results then read using elektroforensis on 1% agarose gel to see the DNA fragments. Sex determination on the birds use W/Z sex determination system. The female sex is marked by the emergence of two bands and on male sex with one band on electrophorensis photo. Two samples of the canary feathers (*Serinus canaria*) that were amplified by PCR obtained 350 bp size for the Z chromosome, and 400 bp for the W chromosome, and from the results of this electrophorensis reading obtained both sample was female. The result shows that the PCR method in terms for sex determination on monomorphic birds especially canary birds is very effective to differentiate the sex of young birds and the adults.

Keywords: Sex determination, canary feathers, PCR.