

EXISTENCE OF *TOXOPLASMA GONDII*'S IN LAKE'S SUBSTANCE AND BEHAVIOUR OF PEOPLE NEARBY LAKES' RESIDENTS

Ardi IGN*, Kardiwinata MP*

*PSKM UNUD

Koresponden: pkardiwinata@yahoo.com/pkardiwianata@unud.ac.id

ABSTRACT

Toxoplasmosis is a zoonotic disease that can be transmitted from animals to humans. The disease is caused by a protozoan known as *Toxoplasma gondii*. The behavioural subject of this research focuses on the behaviours that expose humans to the risk of being infected with *Toxoplasma gondii*. According to One Health concept, the crucial factor that causes toxoplasmosis disease (epidemiological toxoplasmosis) is the interaction between humans as the host, the animal *genus falidae* as definitive *hospes*, as well as the environment polluted by the infective oocyst from *Toxoplasma gondii*.

Research design employed in this study is observational descriptive method that uses the cross-sectional framework, involving 41 respondents that consist of farmers, merchants and fishers of 20-60 years-old age range of nearby lake inhabitants in the year of 2015, in which the sampling is executed using the non-probability, purposive sampling technique.

The univariate analysis shows from the 5 tested variables related to risky behaviours and the livelihood of cats, approximately 97,56% respondents use water from the lake for consumptions, then 95,12% of respondents use the water for brushing teeth and bathing purposes, 100% respondents committed unhygienic behaviour, respondents who consumed raw or half-cooked meat and eggs reaches 100%, and a percentage of 95,12% of the respondents confirmed the livelihood of cats around the lakes and near their residence. However, the laboratory test regarding the existence of *Toxoplasma gondii* in the lake showed negative findings.

Most respondents utilize lake water to fulfil their daily needs, and all of them commit behaviours that expose them to the risks of being infected with *Toxoplasma gondii*. It is advisable to do relevant counselling regarding the risky behaviour of *Toxoplasma gondii* infections for residents in the mountainous area and particularly those living near the lakes where the nearby residents receive low level of educations and from the negative findings of the laboratory test the next relevant research could be carried out.

Keywords: Behaviour, *Toxoplasma gondii*, Lake

**EXISTENCE OF *TOXOPLASMA GONDII*'S IN
LAKE'S SUBSTANCE AND BEHAVIOUR OF
PEOPLE NEARBY LAKES' RESIDENTS**

ARDI IGN, KARDIWINATA MP

BACKGROUND

TOXOPLASMOSIS IS A ZOOONOTIC DISEASE THAT CAN BE TRANSMITTED FROM ANIMALS TO HUMANS. THE DISEASE IS CAUSED BY A PROTOZOA KNOWN AS *T. GONDII*

THE BEHAVIOURAL SUBJECT OF THIS RESEARCH FOCUSES ON THE BEHAVIOURS THAT EXPOSE HUMANS TO THE RISK OF BEING INFECTED WITH *T. GONDII*

BACKGROUND

ACCORDING TO ONE HEALTH CONCEPT, THE CRUCIAL FACTOR THAT CAUSES TOXOPLASMOSIS DISEASE IS THE INTERACTION BETWEEN:

- HUMANS AS THE HOST
- THE ANIMAL *GENUS FALIDAE* AS DEFINITIVE *HOSPES*
- AS WELL AS THE ENVIRONMENT POLLUTED BY THE OOCYST *T. GONDII*

METHODS

RESEARCH DESIGN
EMPLOYED IN THIS STUDY IS
OBSERVATIONAL
DESCRIPTIVE METHOD THAT
USES THE CROSS-SECTIONAL

INVOLVING 41
RESPONDENTS THAT
CONSIST OF FARMERS,
MERCHANTS AND FISHERS
OF NEARBY LAKE
INHABITANTS IN THE YEAR
OF 2015

METHODS

THE SAMPLING IS
EXECUTED USING THE
NON-PROBABILITY,
PURPOSIVE SAMPLING
TECHNIQUE

FISHERS



MERCHANT



MERCHANT



FARMER



RESULT

THE UNIVARIATE ANALYSIS SHOWS FROM THE 5 TESTED VARIABLES RELATED TO RISKY BEHAVIOURS AND THE LIVELIHOOD OF CATS,

- 97,56% RESPONDENTS USE WATER FROM THE LAKE FOR CONSUMPTIONS
- 95,12% OF RESPONDENTS USE THE WATER FOR BRUSHING TEETH AND BATHING PURPOSES

RESULT

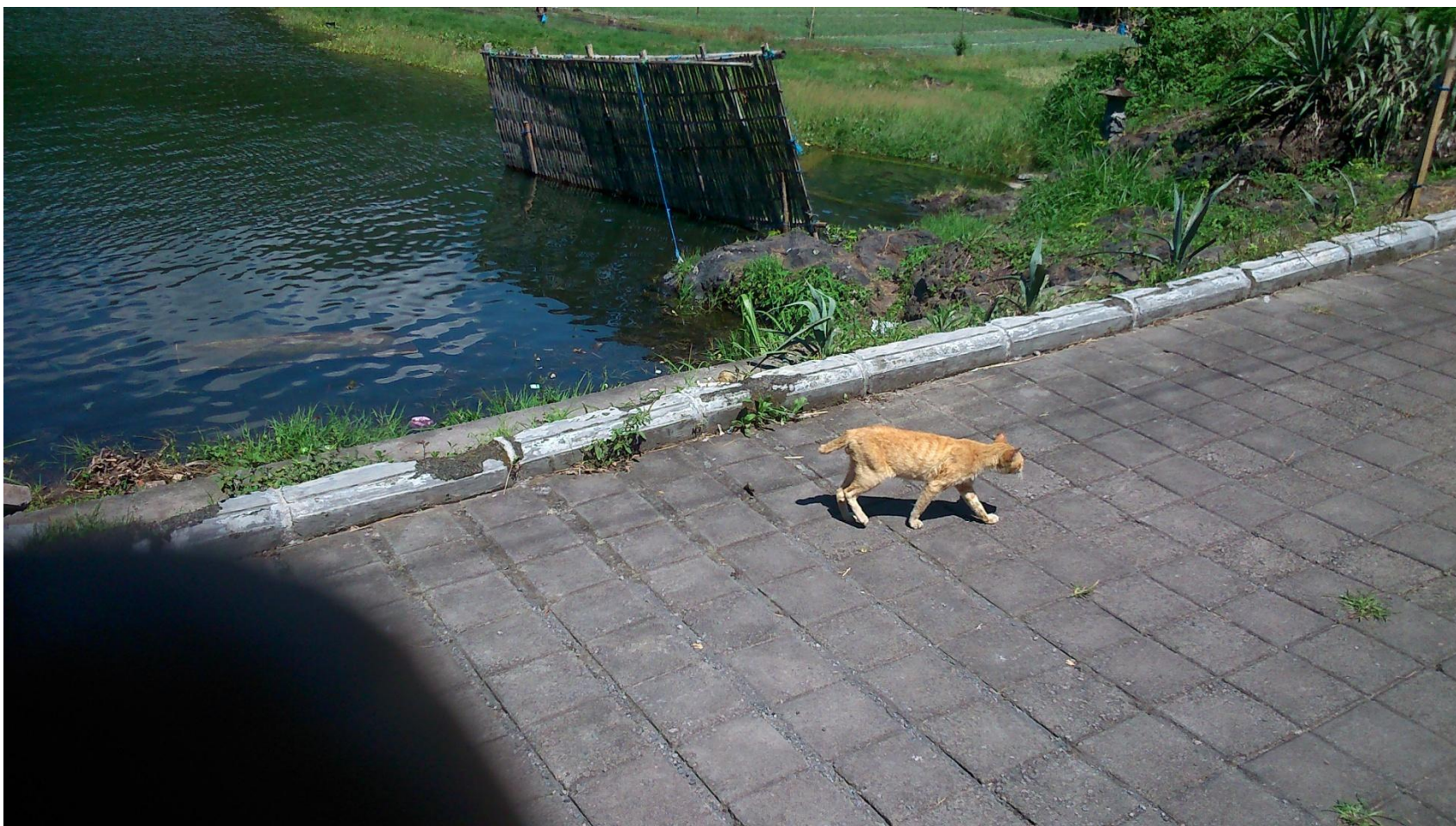


100% RESPONDENTS WHO CONSUMED RAW OR
HALF-COOKED MEAT AND EGGS

95,12% OF THE RESPONDENTS CONFIRMED THE
LIVELIHOOD OF CATS AROUND THE LAKES AND NEAR
THEIR RESIDENCE

THE LABORATORY TEST REGARDING THE EXISTENCE OF *T. GONDII* IN THE LAKE SHOWED NEGATIVE FINDINGS

CAT AROUND THE LAKE



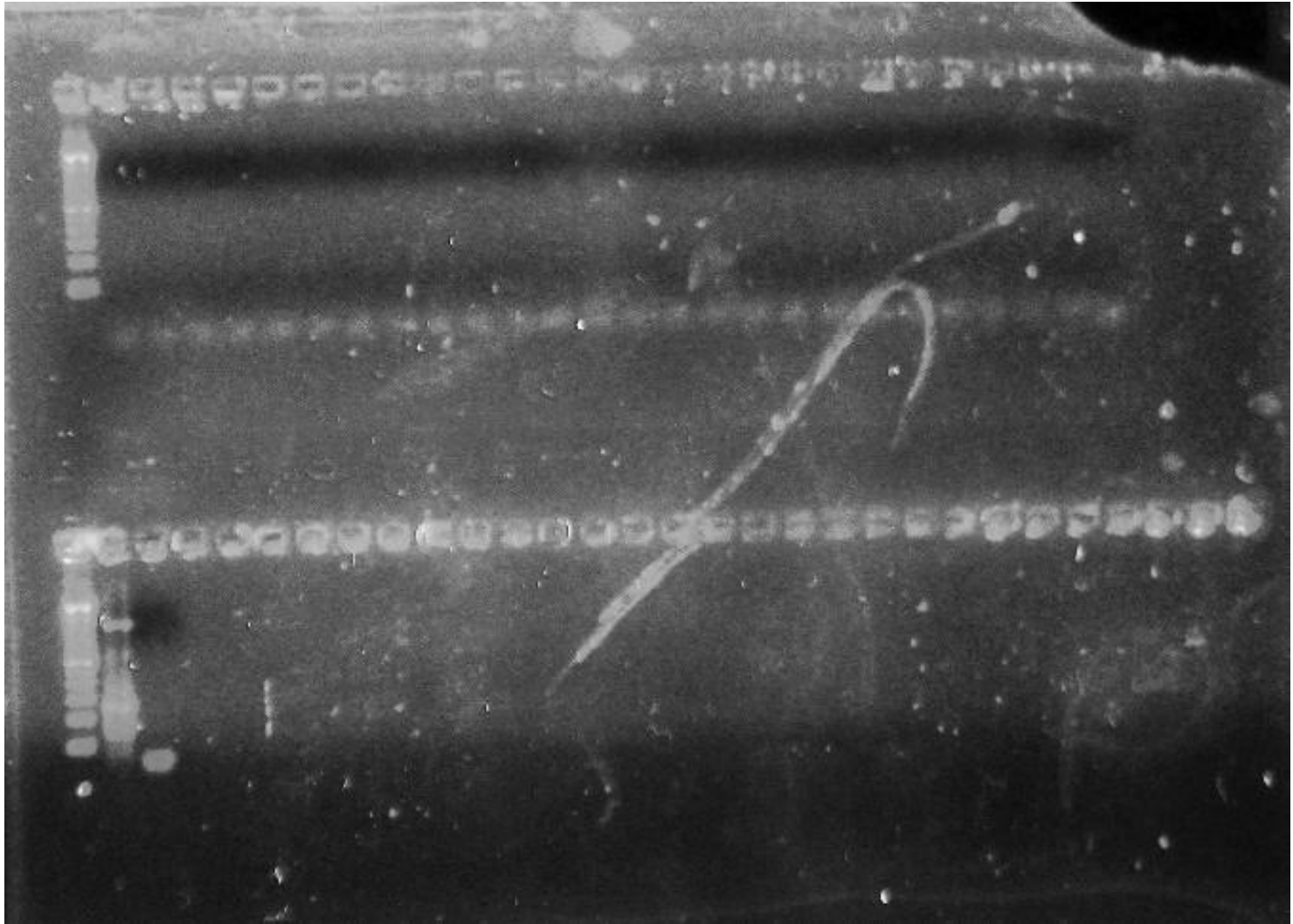
UTILIZE LAKE WATER



UTILIZE LAKE WATER



THE LABORATORY TEST (PCR)



CONCLUSION

MOST RESPONDENTS UTILIZE
LAKE WATER TO FULFIL THEIR
DAILY NEEDS

AND ALL OF THEM COMMIT
BEHAVIOURS THAT EXPOSE
THEM TO THE RISKS OF BEING
INFECTED WITH *T. GONDII*

CONCLUSION

IT IS ADVISABLE TO DO RELEVANT COUNSELLING REGARDING THE RISKY BEHAVIOUR OF *TOXOPLASMA GONDII* INFECTIONS, PARTICULARLY THOSE LIVING NEAR THE LAKES

FROM THE NEGATIVE FINDINGS OF THE LABORATORY TEST THE NEXT RELEVANT RESEARCH COULD BE CARRIED OUT

THANK-YOU