ANNUAL PROGRESS REPORT

SEATO Medic Study No. 23	Studies on Opisthorchis viverrini in Thailand.- The Animal Reservoir Hosts
Project No. 3A 025601 A 811	Military Medical Research Program S. E. Asia
Task 01:	Military Medical Research Program S. E. Asia
Subtask 01:	Military Medical Research Program SEASIA (Thailand)
Reporting Installation:	US Army-SEATO Medical Research Laboratory, APO 146, San Francisco, California. Division of Medical Research Laboratories Department of Medical Zoology
Period Covered by Report:	1 April 1963 to 31 March 1964
Principal Investigator:	Major Dale E. Wykoff, MSC
Associate Investigator:	MSGt Max M. Winn
Reports Control Symbol:	MEDDH-288
Security Classification:	UNCLASSIFIED

ABSTRACT

SEATO Medic Study No. 23	Studies on Opisthorchis viverrini in Thailand. The Animal Reservoir Hosts
Project No. 3A 025601 A 811	Military Medical Research Program S. E. Asia
Task 01:	Military Medical Research Program S. E. Asia
Subtask 01:	Military Medical Research Program SEASIA (Thailand)
Reporting Installation:	US Army-SEATO Medical Research Laboratory, APO 146, San Francisco, California.
	Division of Medical Research Laboratories
	Department of Medical Zoology
Period Covered by Report:	1 April 1963 to 31 March 1964
Principal Investigator:	Major Dale E. Wykoff, MSC
Associate Investigator:	MSGt Max M. Winn
Reports Control Symbol:	MEDDH-288
Security Classification:	UNCLASSIFIED

The purpose of this study was to determine whether domesticated or non-domesticated animals act as natural reservoir hosts for the liver fluke O. viverrini. Animals have been trapped or otherwise procured fro study in the remote area of northeast Thailand bordering on Laos. Although particular attention has been given to piscivorous birds and mammals none were found to be naturally infected. Experimentally, bandicoots, rats, and mongooses were found to become infected following ingestion of infected fish.

BODY OF REPORT

SEATO Medic Study No. 23	Studies on Opisthorchis viverrini in Thailand. The Animal Reservoir Hosts
Project No. 3A 025601 A 811	Military Medical Research Program S. E. Asia
Task 01:	Military Medical Research Program S. E. Asia
Subtask 01:	Military Medical Research Program SEASIA (Thailand)
Reporting Installation:	US Army-SEATO Medical Research Laboratory, APO 146 San Francisco, California.
	Division of Medical Research Laboratories
	Department of Medical Zoology
Period Covered by Report:	1 April 1963 to 31 March 1964
Principal Investigator:	Major Dale E. Wykoff, MSC
Associate Investigator:	MSGt Max M. Winn
Reports Control Symbol:	MEDDH-288
Security Classification:	UNCLASSIFIED

Final Report

Objective: The purpose of this study was to determine whether either domesticated or non-domesticated animals act as natural definitive reservoir hosts of O. viverrini. The animals were also used to provide ectoparasites for the Department of Entomology; blood for the Department of Virology, and skins for the U. S. National Museum.

Description: Animals were trapped in remote areas near the Thai-Lao border. Blood specimens were taken, after which the animals were sacrificed. Liver sections were examined for parasites by pressing them between clear plastic plates.

Progress: Although special attention was given to piscivorous animals, no non-domesticated animals were found to be naturally infected with O. viverrini. To determine whether certain animals were resistant to infection, or whether they were negative only because they ate no fish, rats, bandicoots and mongooses were forces fed fish containing the metacercariae. All became subsequently

infected. Domesticated cats and dogs were examined. Of 75 dogs, almost 50% were found to be naturally infected. Over 100 cats were obtained from the villages and 65% were positive.

Summary: This investigation shows that wild animals do not play more than a negligible role as reservoirs of O. viverrini. Although some species are naturally free of infection, they may be experimentally infected by force-feeding them infected fish.

Conclusion: If, in the future, a village chemotherapeutic program is established to treat infected humans, it will be necessary first to remove the cats and dogs from the immediate area. Other animals evidentally do not act as reservoirs.

List of Publications: This report is being incorporated into the following paper which is now in manuscript and which will be submitted for publication in May, 1964: Wykoff, D. E., Harinasuta, C., Juttijudata, P., and Winn, M. M. Studies on Opisthorchis viverrini in Thailand - Notes on the life cycle and comparison with O. felineus.