



มหาวิทยาลัยมหิดล
Mahidol University
Wisdom of the Land

Double-layer net trap (DLN) : The bitten-free risk trap for human bait collection of anthropophilic mosquitoes.

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Why human bait is important ?

- Incriminate vector
- Biting behavior
 - Biting time
 - Host preference
- Actually entomological data
- Alive specimens

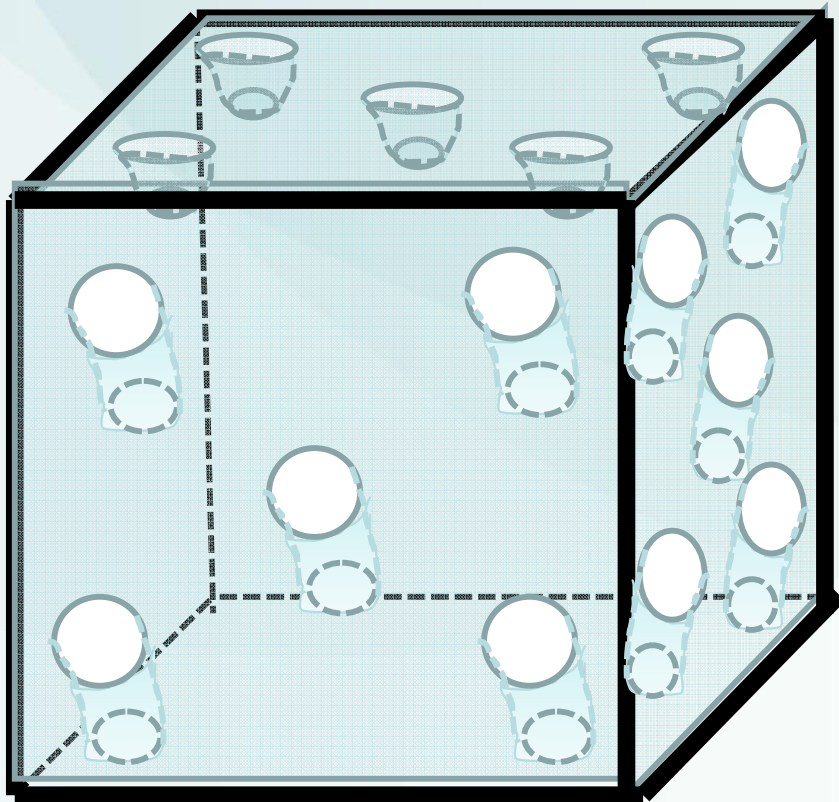
What are problems of human bait ?

- Risk of infection
- Need more experience of volunteers
- Depend on human factors

Why not other methods?

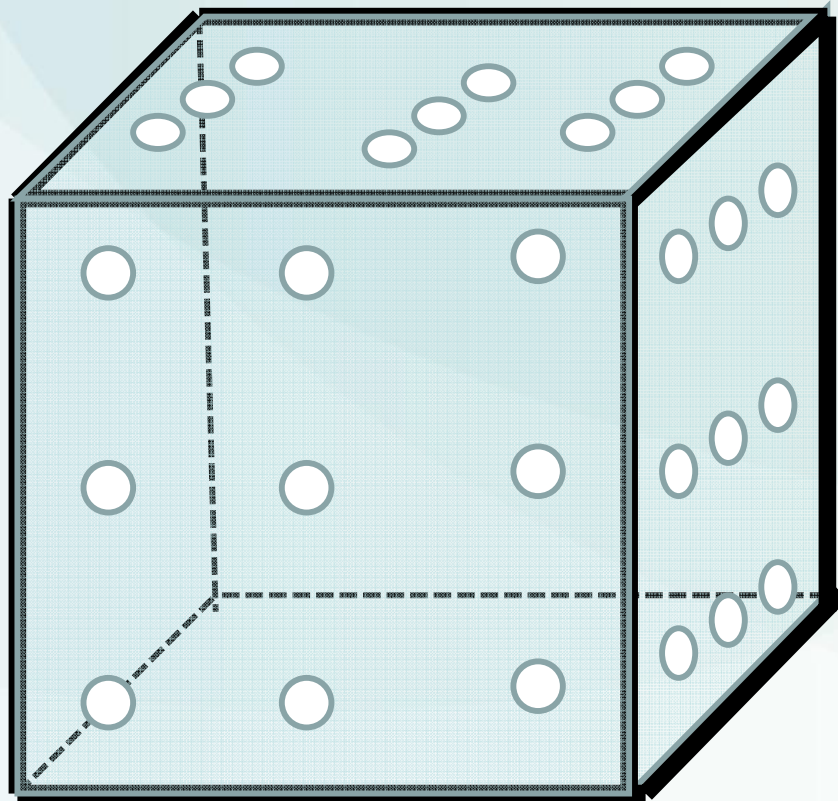
- More of Less estimation
- Not reflect actual behavior

Inner layer net



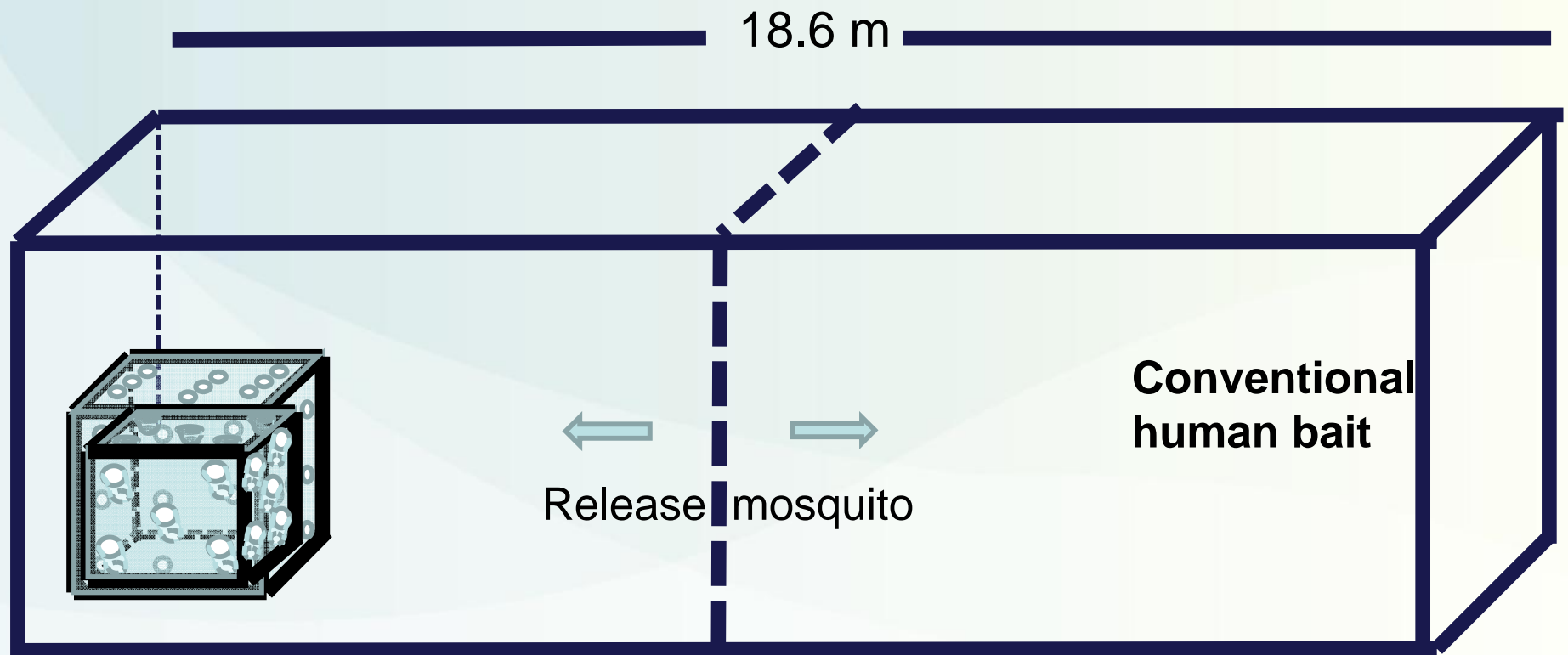
- White color
- Sock liked-openings
- Protect from biting
- Sit, but not sleep

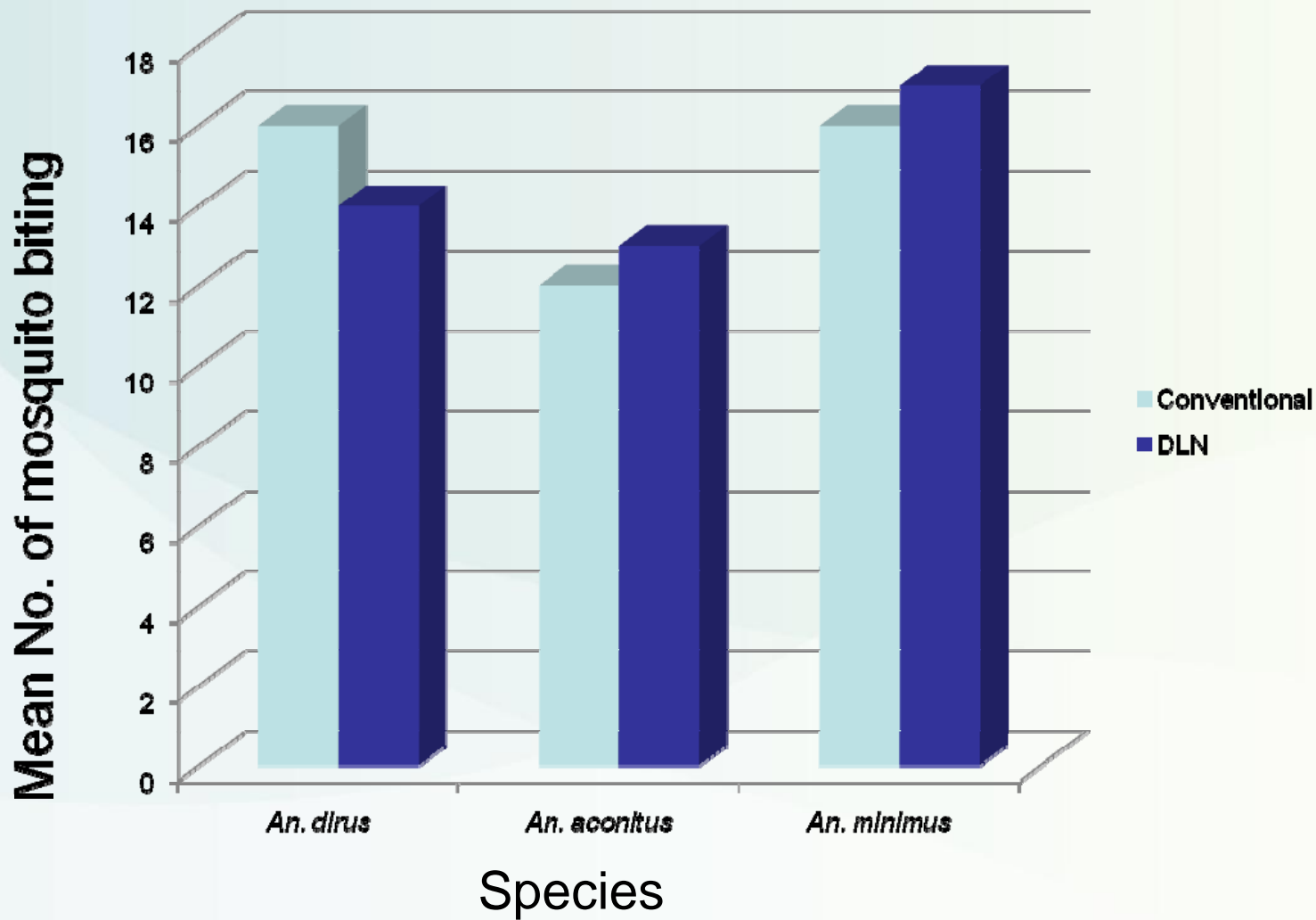
Outer layer



- Black / white color
- Holes for mosquito enter
- Protect mosquito fly away from net

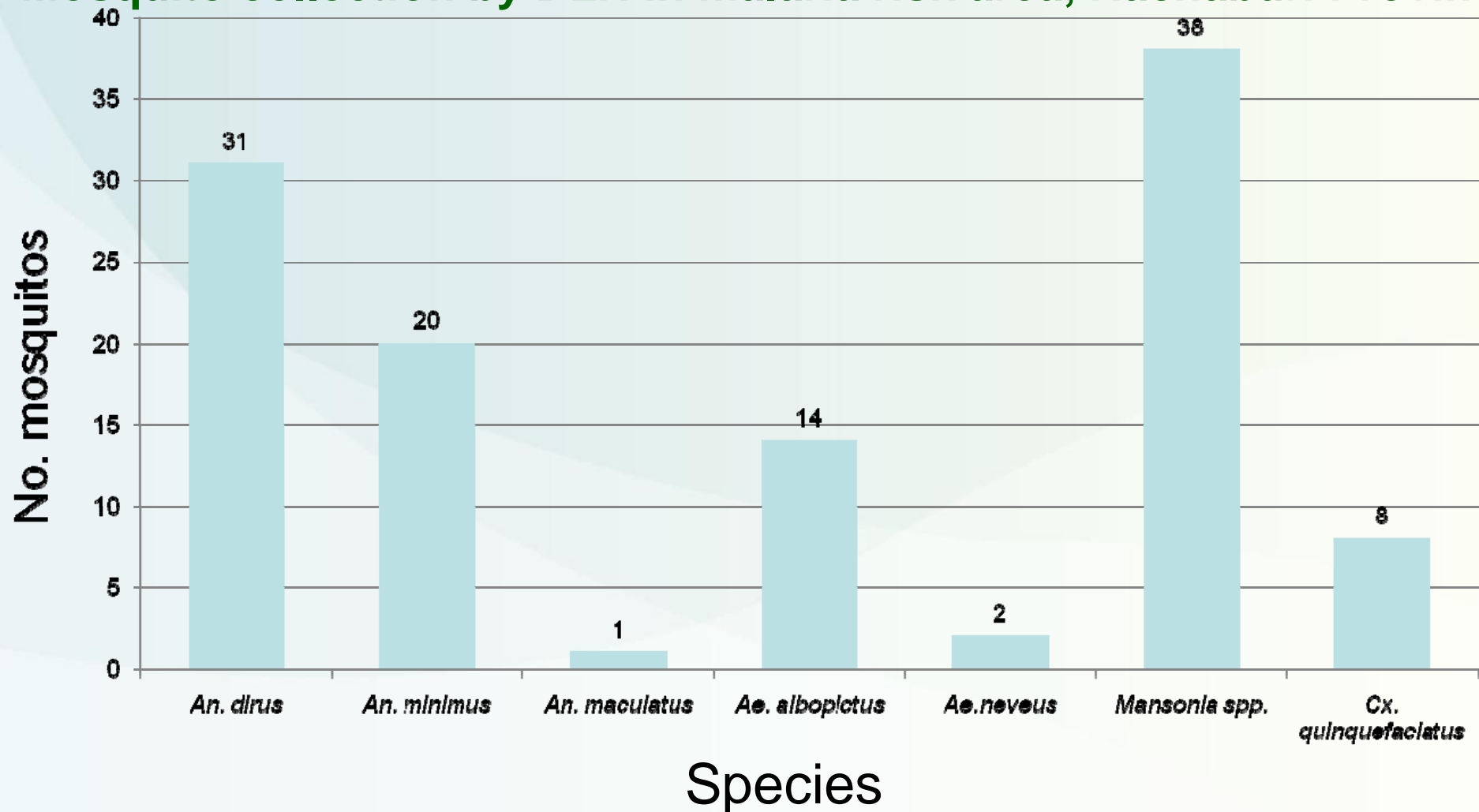
Semi – field preliminary test





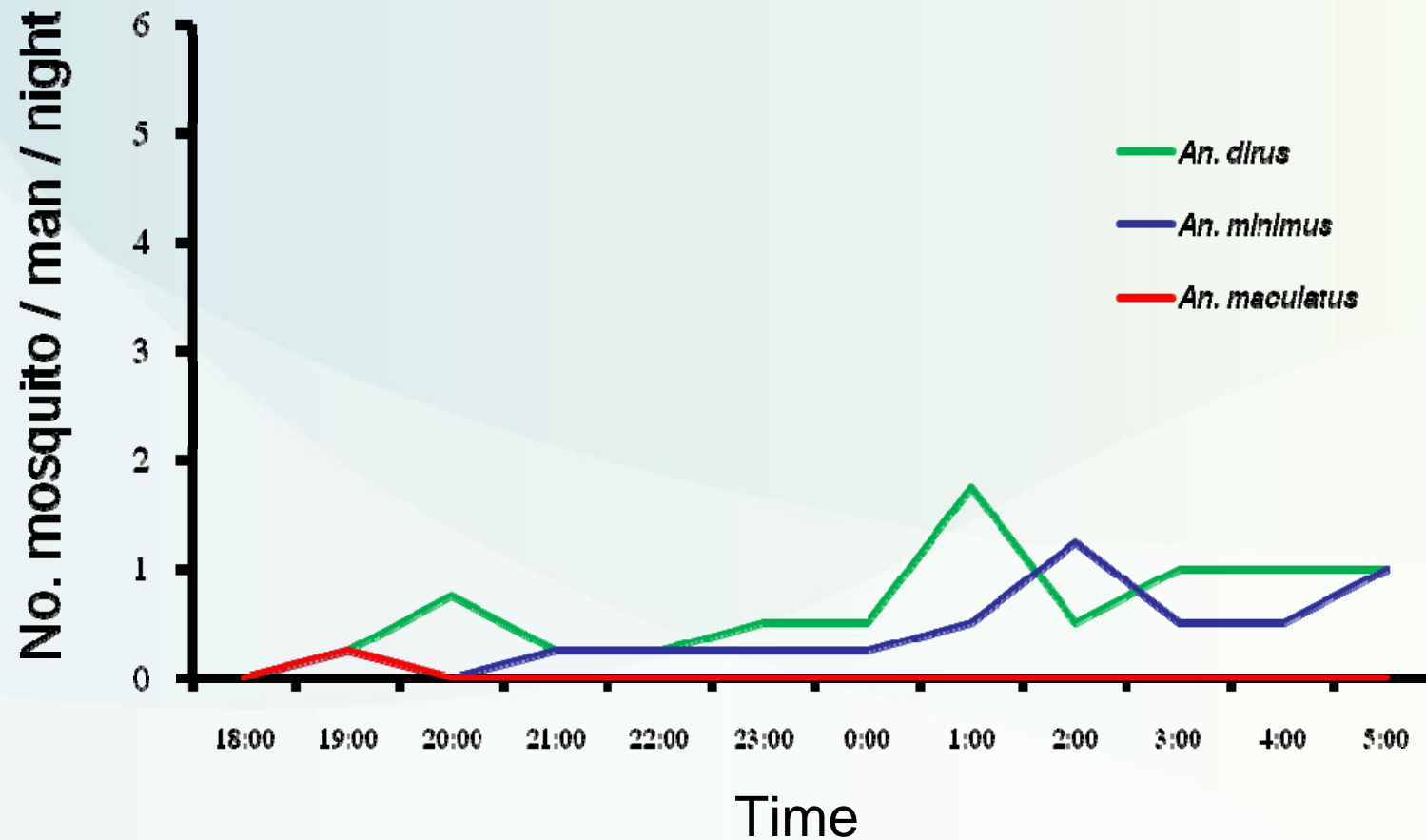
Field preliminary test

Mosquito collection by DLN in malaria risk area, Rachaburi Province.



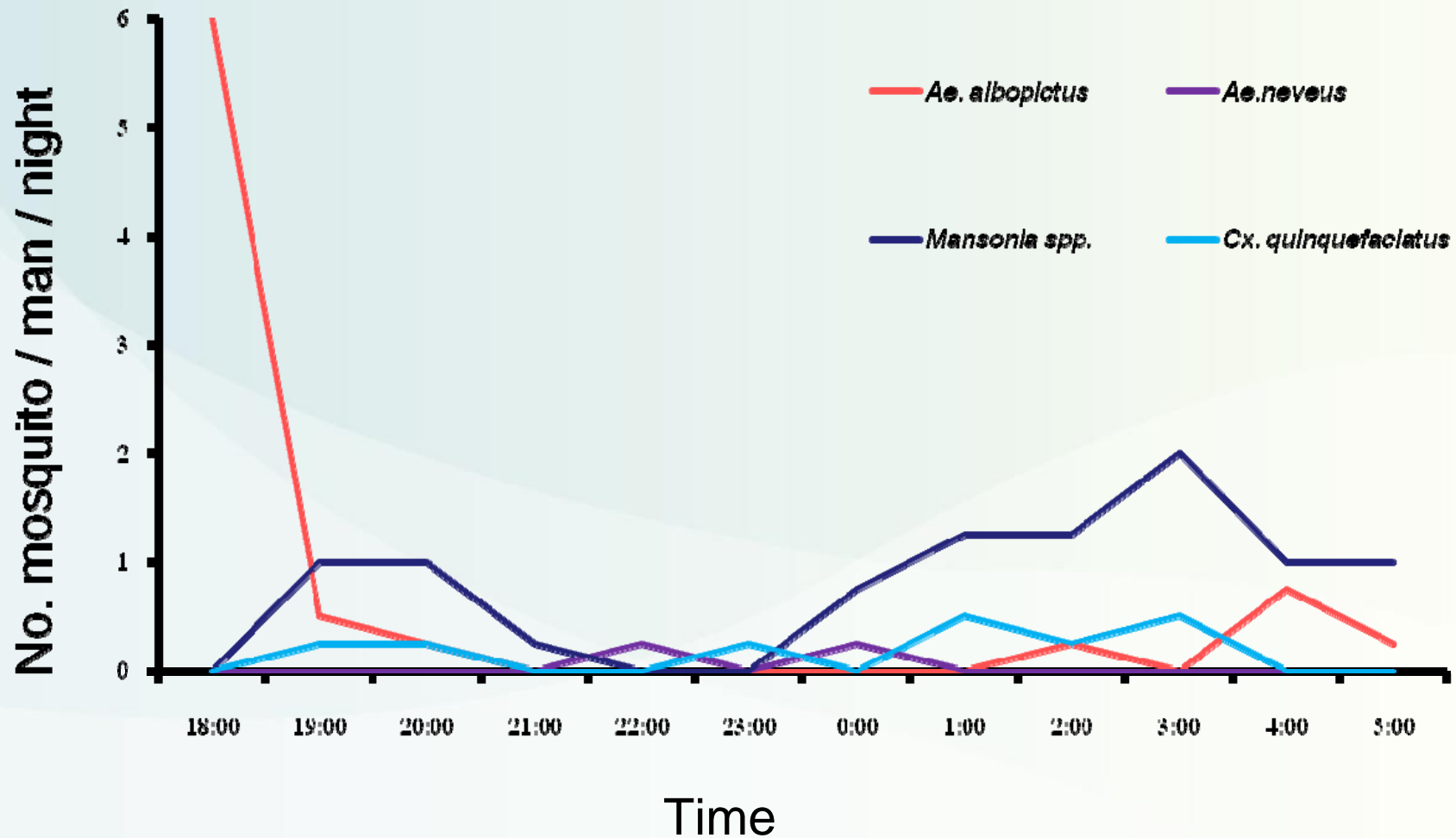
Field preliminary test

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Field preliminary test

Mosquito collection by DLN in malaria risk area, Rachaburi Province.



Optimization:

- Holes area for mosquito entering
- Position of sock liked openings
- Day time mosquito collection