

PD – BIOTECHNOLOGY COMPONENT

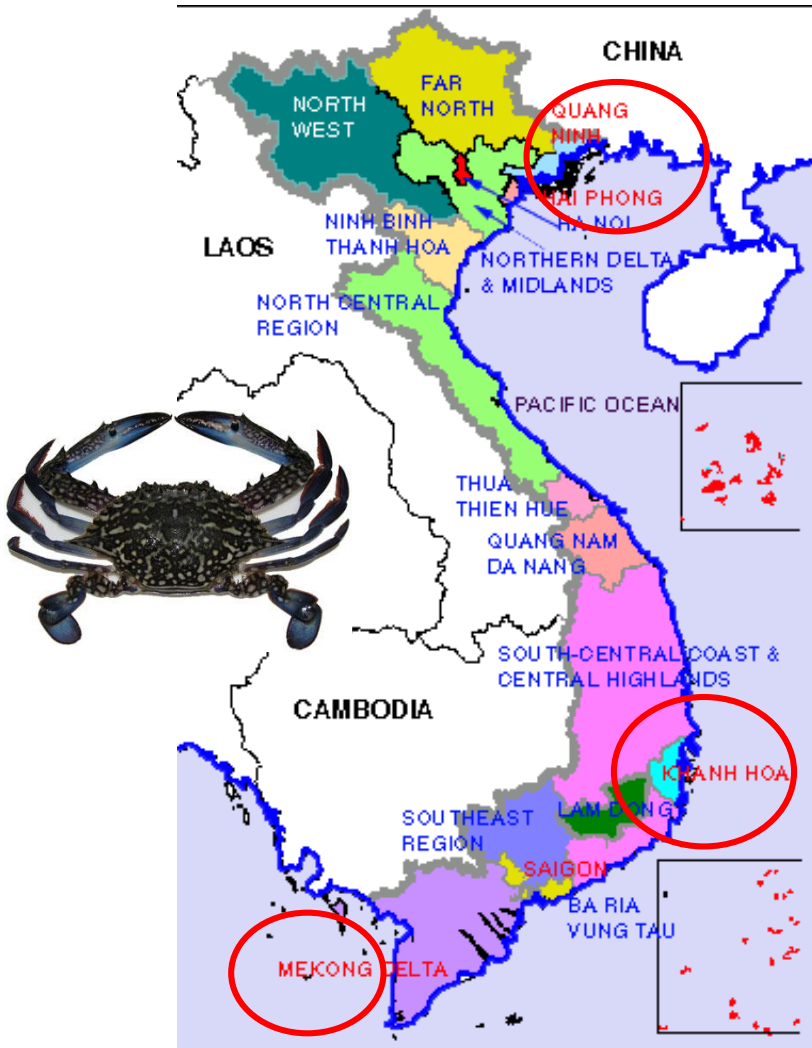
Project title: *Effect of climate change on population dynamics of the swimming crab, Portunus pelagicus, and the epidemiology of selected disease causing organisms*

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- Institute for Biotechnology and Environment, Nha Trang University

Project activities

Sampling:

Conduct swimming crab (*P. pelagicus*) sampling in Quang Ninh and Hai Phong (North of Vietnam), Khanh Hoa, Phu Yen (Center), and Phu Quoc, Ranh Gia -Kien Giang (south) from (5/2016 -5/2017)



Research Result – symbiont species diversity

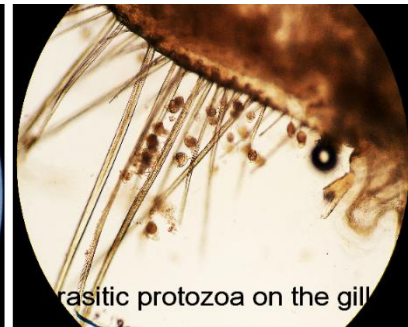
- Examine symbiont species composition from different swimming crab (*P. pelagicus*) populations, new record for 4 species
- Identify symbiont species based on morphologic and genetic characters.
- Up to now, we found 17 species belong to 5 different phyla. Statically analysis showed the significant different between sampling locations, and sexes (crab male, and female). No trend was observed seasonally



Infected swimming crab



Parasitic Barnacle on the gill



Parasitic protozoa on the gill



Worm eating egg

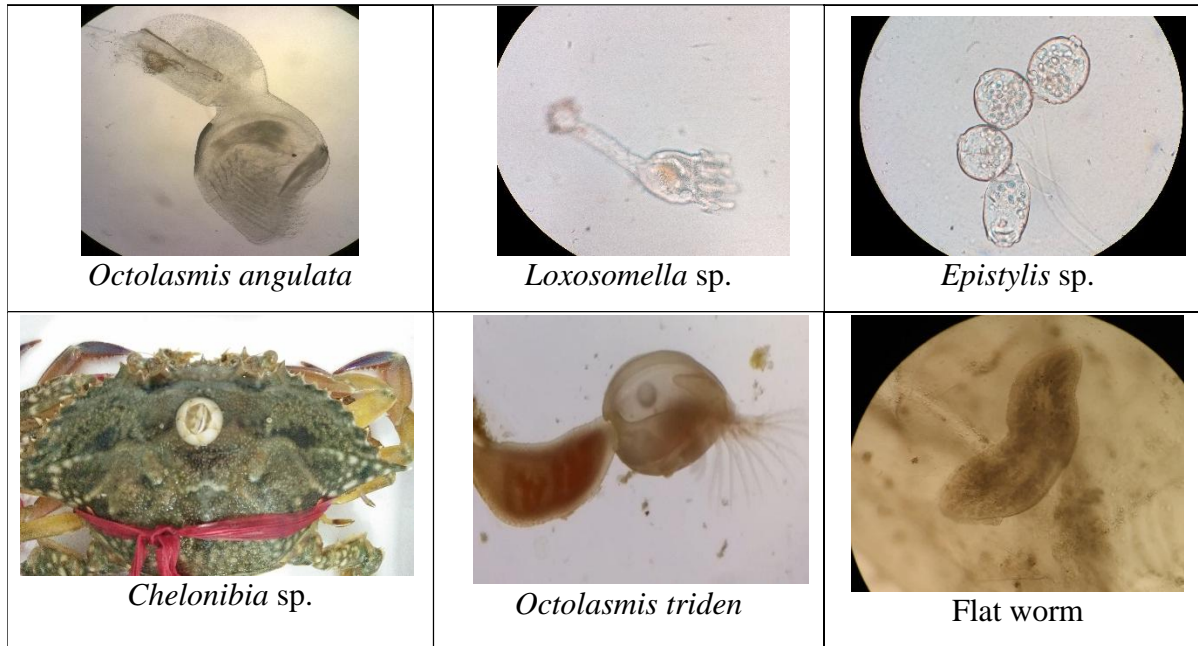


Loxosomella sp.



Octolasmis algalet

Symbiont species on Swimming crab

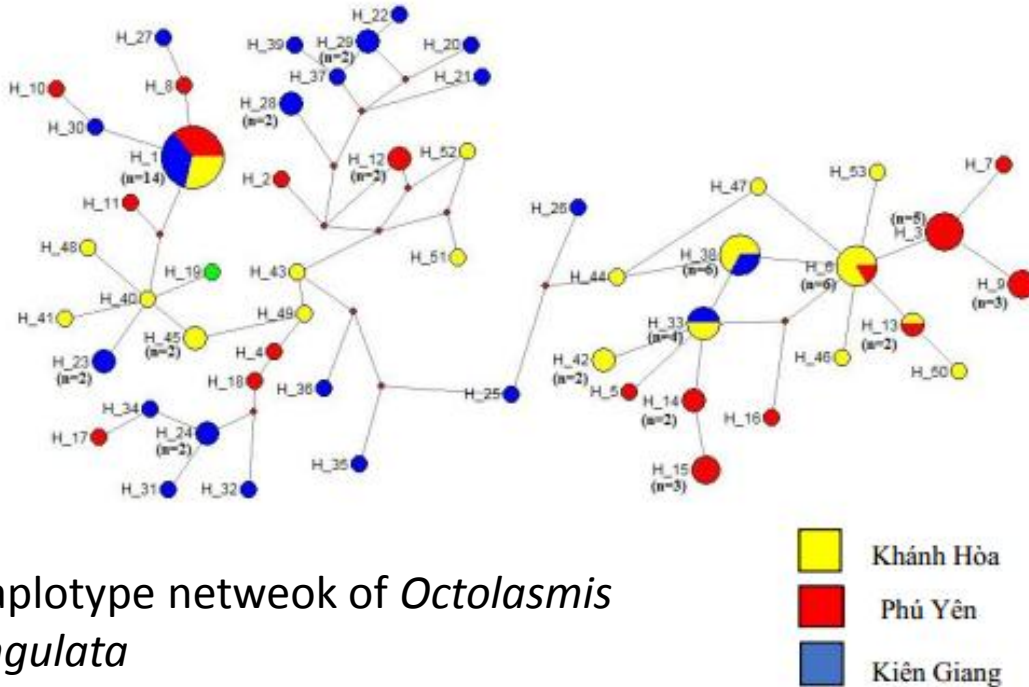


Symbiont species on Swimming crab

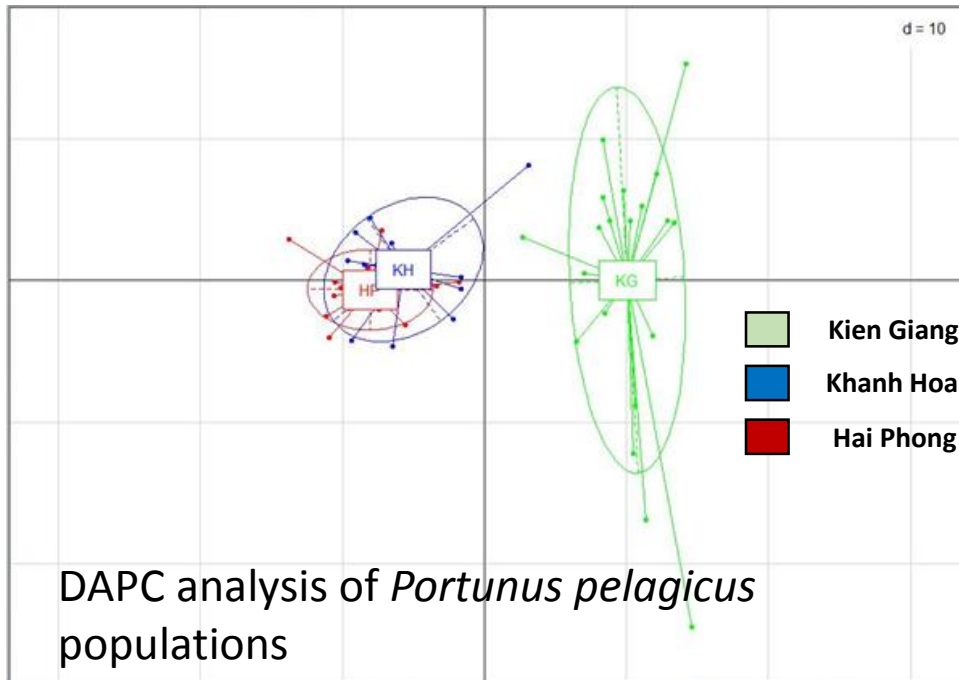


Heavy infected swimming crab

Research Result – Genetic diversity



Haplotype network of *Octolasmis angulata*



DAPC analysis of *Portunus pelagicus* populations

- Examine phylogenetic relationships of symbiont infected swimming crab (*P. pelagicus*)
- Examine population structure of common infected barnacle *Octolasmis angulata* on *P. pelagicus*
- Examine population genetics of *P. pelagicus* along Vietnamese coastline

Education

- Our Msc students
 - 1 Msc in Biotechnology
 - 1 Msc in Ecosystem management and Climate change



What next?

- Complete population genetics of common infected barnacle *Octolamnis angulata* on *P. pelagicus*
- Complete population genetics and structure of *P. pelagicus*
- Detecting outlier loci
- Test migration models
- Writing and publications