LOBSTER's AND OTHER DECAPOD's LIVING BIOTOPE, MORPHOLOGY, AND BEHAVIOR:

CAN THESE CONNECTIONS BE USED TO LEARN MORE ABOUT REALLY CONCEALED LIFE STAGES?

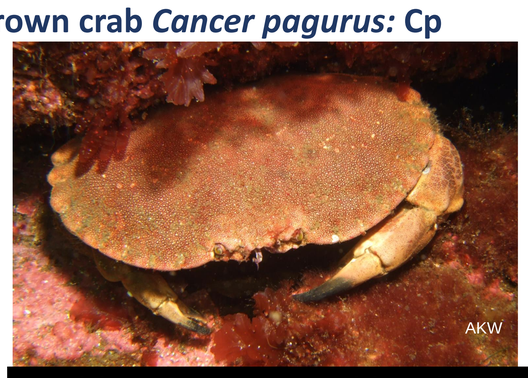
Gro I. van der Meeren & Astrid K. Woll

Institute of Marine Research
PB 1870 Nordnes, NO-5817 Bergen, NORWAY

Woll Naturfoto
Industrivegen 9, N-6475 Midsund

One behavior is similar for all:
Copulation abdomen to abdomen

Brown crab *Cancer pagurus:* Cp

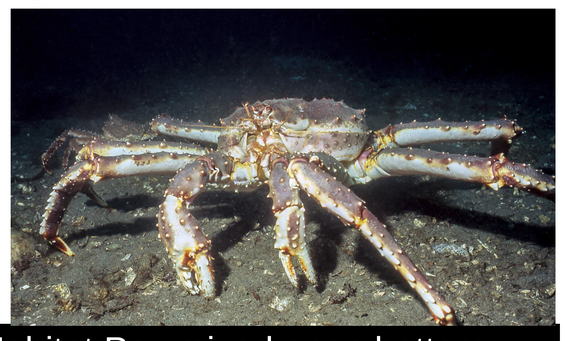


Habitat Cp: exposed hard bottoms and kelp forests, open sand

European lobster *Homarus gammarus*: Hg

Habitat Hg: rocky or mixed, shallow bottoms

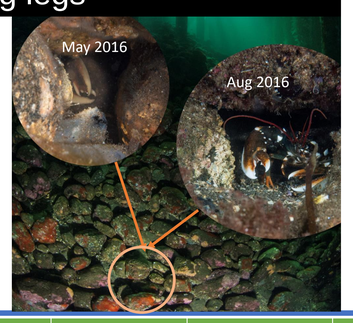
Red king crab *Paralithodes camtschaticus*: Pc



Habitat Pc : mixed open bottoms, often soft sediments

Cp juvenile:
round-bodied, solid excuvia, strong chelae, strong walking legs.

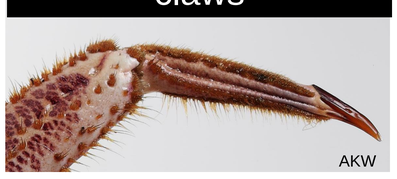
Hg juvenile:
slim-bodied, fragile excuvia, slender chelae at settling (reared Hg, left) developing to stronger chelae with a year (wild Hg right), short, thin walking legs



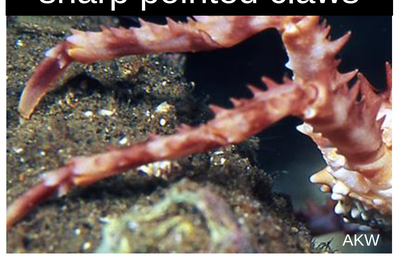
Pc *juveniles*:
triangular body, sharp spikes, small chelae, long and strong walking legs,

Hg: Specialized pincing walking legs

Cp: Pointed, sharp claws

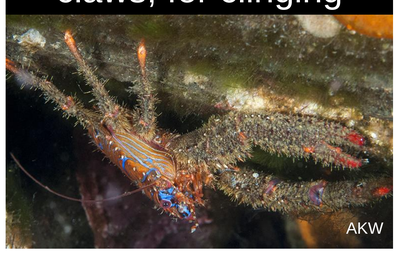


Pc: Long walking legs, sharp pointed claws



Nn: Specialized pincing walking legs

Gs: Curved, sharp claws, for clinging



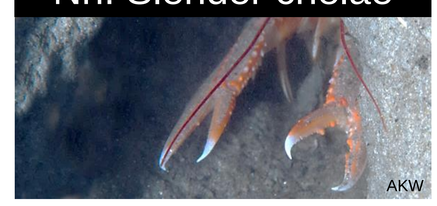
Morphology	Hg	Pc	Cp	Hg juv.	Pc juv.	Cp juv	Nn	Gs
Body shape	Elongate	Round	Triangular	**Elongate**	Round	Triangular	Elongate	Elongate
Walking legs	Strong, pincers	Strong, pointed claws	Long, strong, pointed claws	**Thin, several with pincers**	Strong, pointed claws	Long, strong, pointed claws	Slender, some with pincers	Strong, curved pointed claws
Chelae	Strong	Strong	Strong	**Slender**	Strong	Short	Slender	Short
Spikes	No	No	No	**No**	No	Yes	No	No
Excuvia strength	Medium	Strong	Medium	**Fragile**	Strong	Medium	Medium	Medium
		Blue: Hg juveniles	Blue: similar to Hg juveniles	**Red: Speculations on habitat of Hg juveniles**				
Behavior	**Hg**	**Pc**	**Cp**	**Hg juv.**	**Pc juv.**	**Cp juv**	**Nn**	**Gs**
Telson flip escape	Yes	No	No	**Yes**	No	No	Yes	Yes
Active burrower	Tunells	Depressions	No	In lab: **Tunells**	No	Depressions	Tunells	No
Biotope	Hg	Pc	Cp	Hg juv.	Pc juv.	Cp juv	Nn	Gs
Shelter	Burrows under solid objects	In cracks and crevices, in sand	In pods	**Burrows?**	In cracks and crevices	In pods	Burrows in soft sediments	In cracks and crevices
Depth	Shallow	Shallow to medium depth	Shallow, occational at several 100 m depth	**Shallow?**	Shallow	Shallow	Several 100 m depth	Shallow
Sediments	Rocky or mixed bottoms	Rocky and mixed bottoms	Rocky and soft bottoms	**Soft sediments with solid objects covering burrow?**	Rocky bottoms, kelp forests	Mostly rocky bottoms	Soft sediments	Rocky bottoms

Hg: Crusher chelae

CP: Crusher chelae

Pc: Small, specialized chelae

Nn: Slender chelae



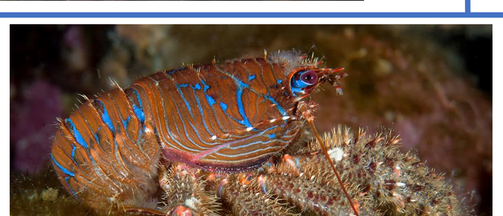
Gs: Small, specialized chelae

Norway lobster *Nephrops norvegicus*: Nn

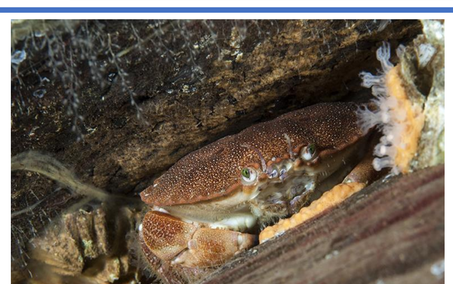
Habitat: sandy or soft deep bottoms

Spiny squat lobster *Galathea strigosa*: Gs

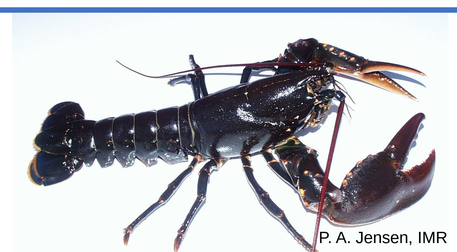
Habitat: rocky, shallow bottoms



Strong telson tucked under abdomen, used for quick retreat backwards.
Shelter in crevices, often hanging upside-down



Small, calcified telson tucked under abdomen.
Shelter in sand and cracks



Long telson, used for quick retreat backwards.
Shelter in burrow, usually underneath solid objects

Wide, soft telson tucked under abdomen.
Shelter in pods

Long telson, used for quick retreat backward.
Shelter in burrow