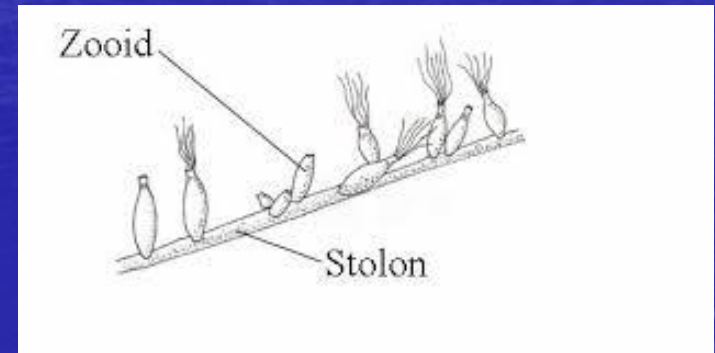
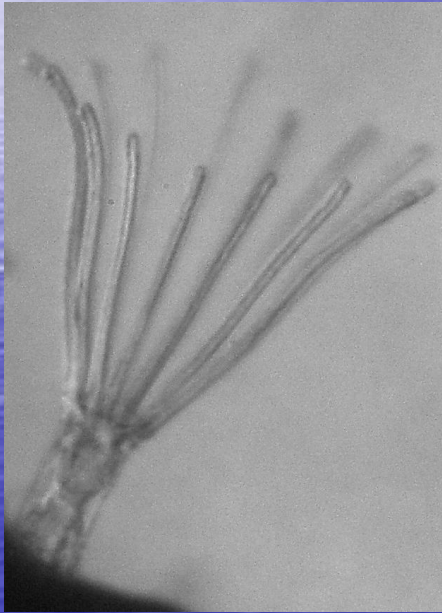


Mosdiertjes – Bryozoa

Hans De Blauwe

Eerste kennismaking met mosdiertjes

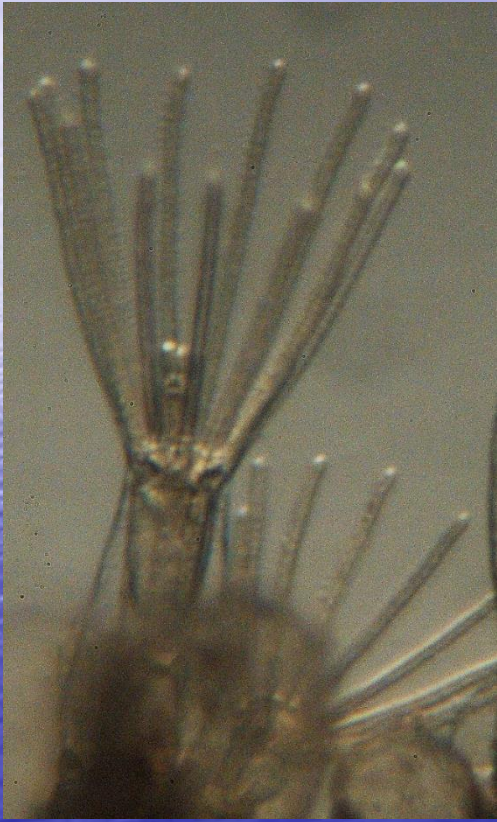
1998: achterhaven Zeebrugge



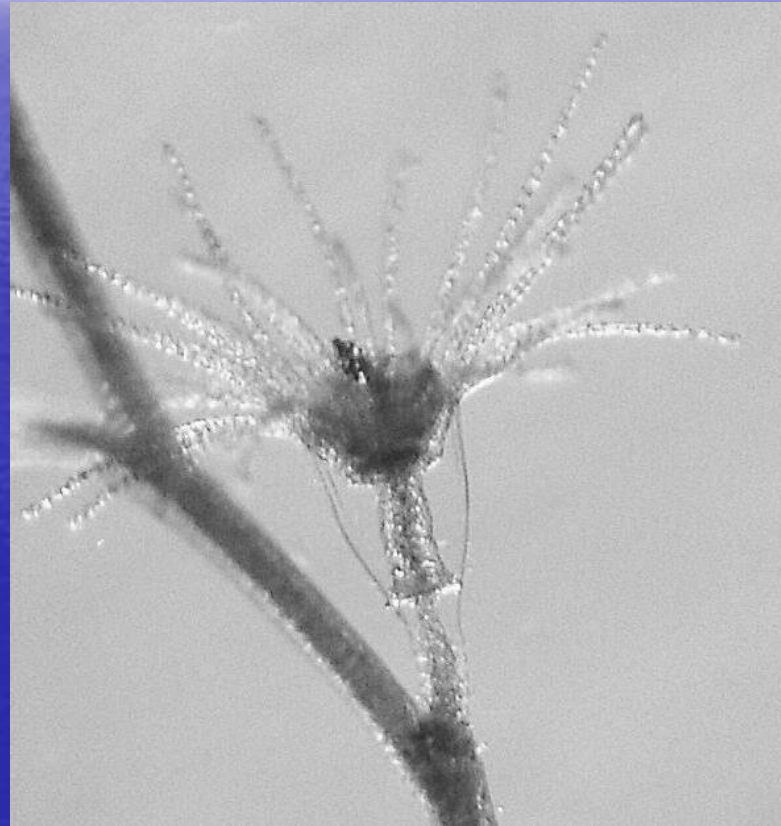
Wat zijn mosdiertjes?

- dieren kleiner dan 1 mm
- vastgehecht aan een harde ondergrond
- die in kolonies leven
- die zich voortplanten door zich te klonen
- merendeel leeft in zee

Hoe herken je mosdiertjes

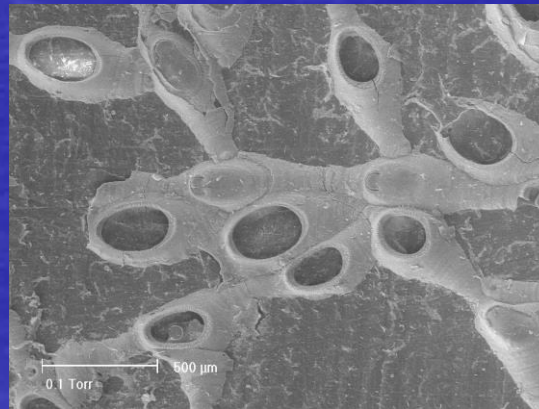
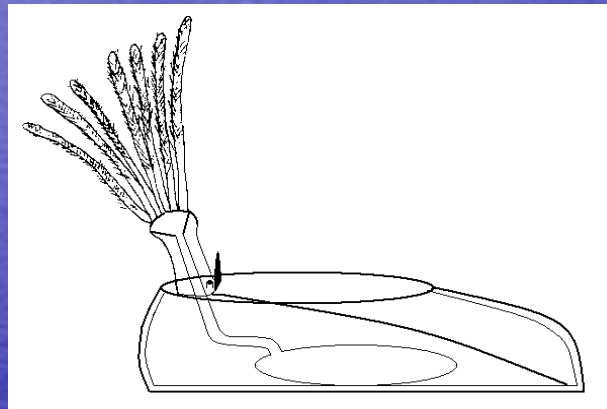
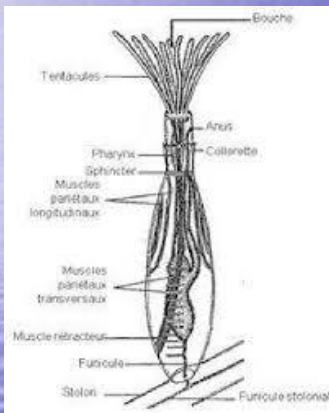


Mosdiertjes - Bryozoa



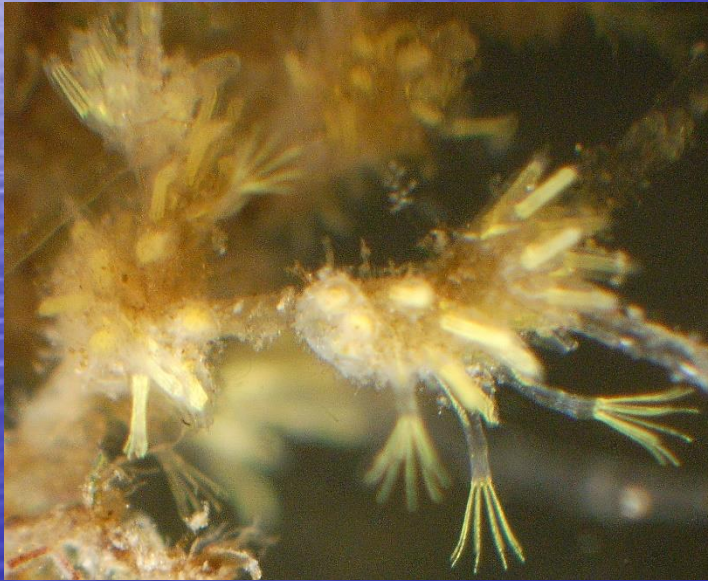
Neteldieren - Hydrozoa

Wat zijn mosdiertjes?



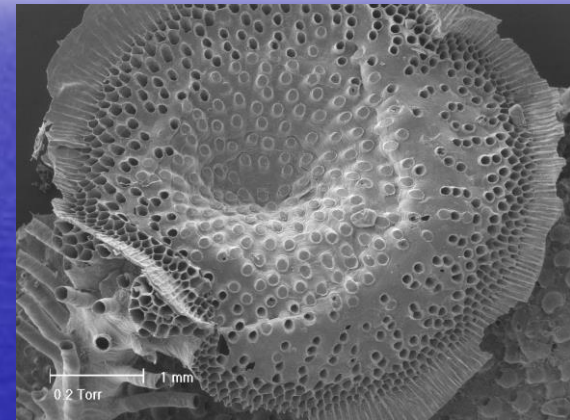
Indeling

1. Wand niet verkalkt

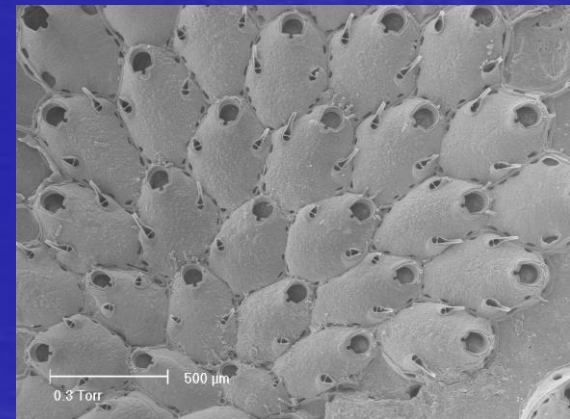


2. Wand verkalkt

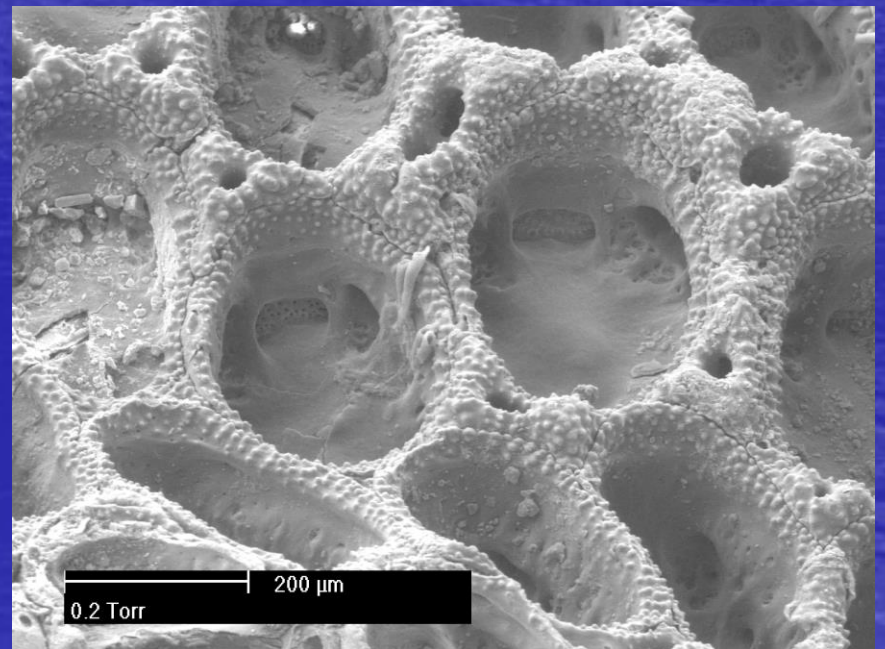
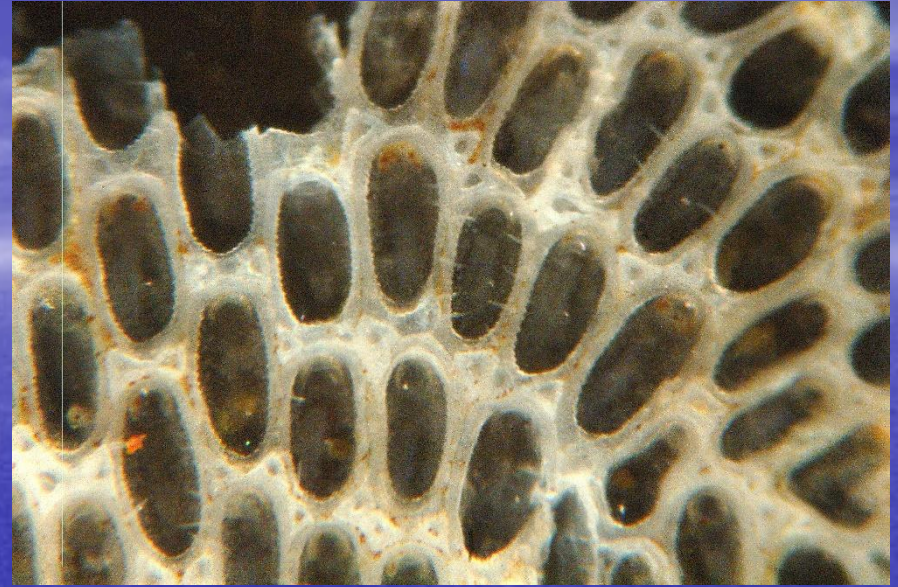
a) Buisje met ronde opening



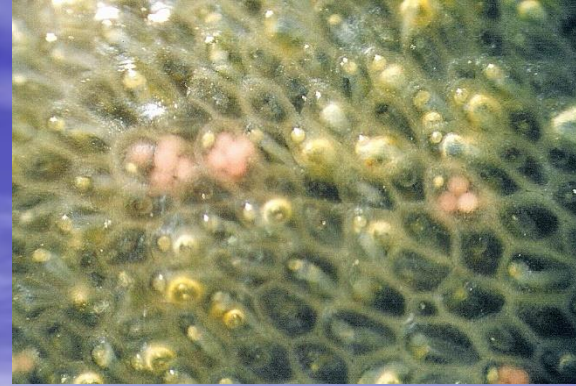
b) Doosje met deksel



- Zeekantwerk
- Zeevitrage



Doorschijnende zeevinger
Alcyonidium gelatinosum



Grijze zeevinger
A. condylocinereum



Bruine zeevinger
A. diaphanum

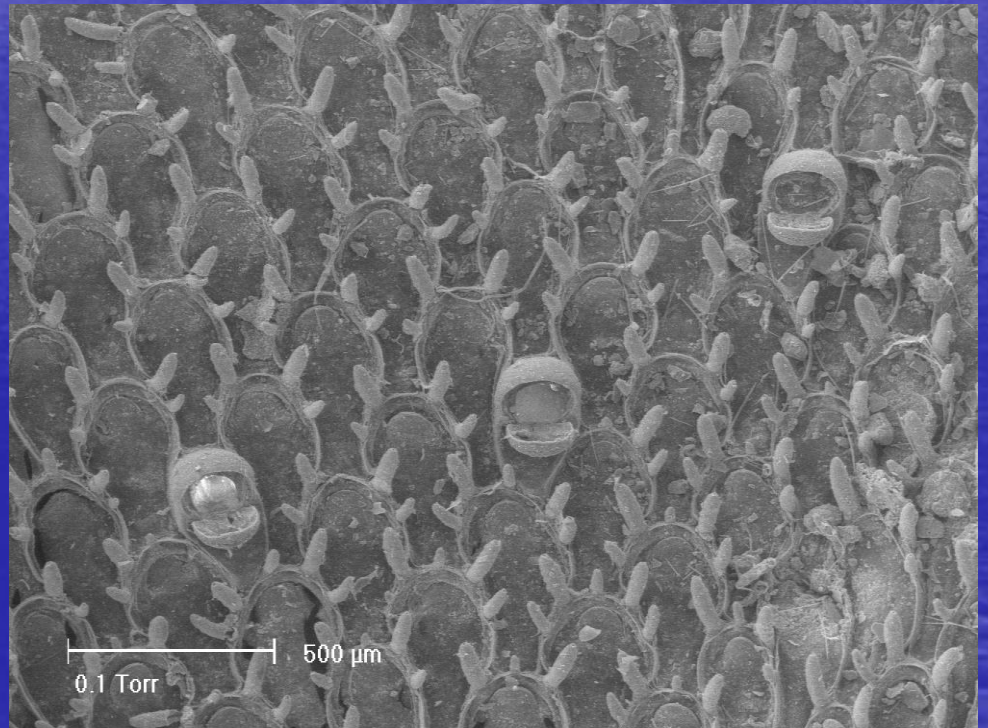


Chartella papyracea smalbladig mosdiertje



Breedbladig mosdiertje

Flustra foliacea



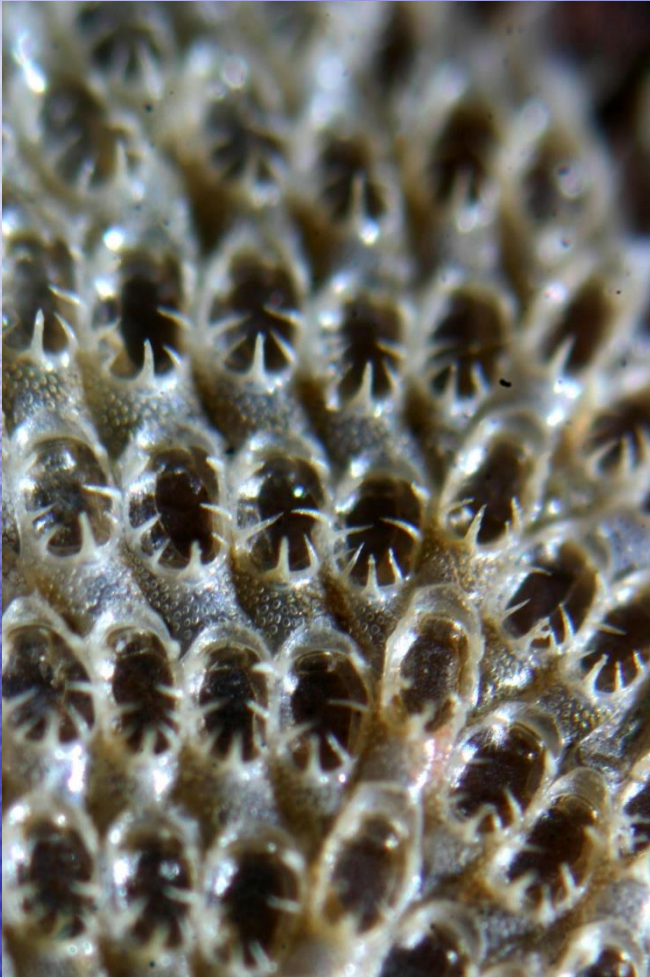
Harig mosdiertje

Electra pilosa



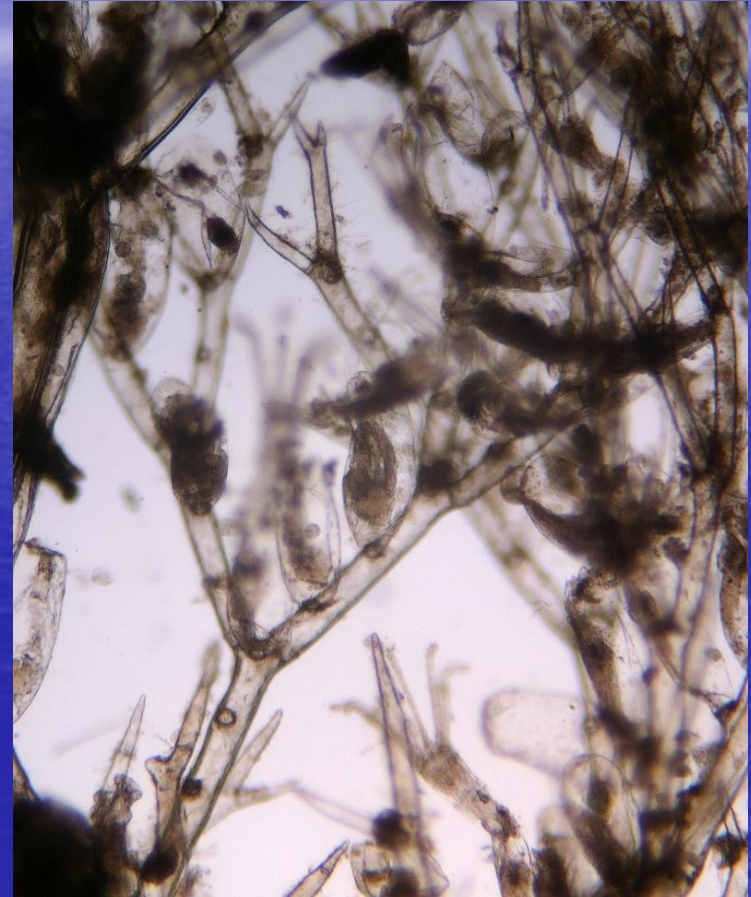
Harig mosdiertje

Electra pilosa



Wim Decock

Zijdemosdiertje *Vesicularia spinosa*



Bugula - Crisularia - Bugulina soorten (vogelkopmosdiertjes)

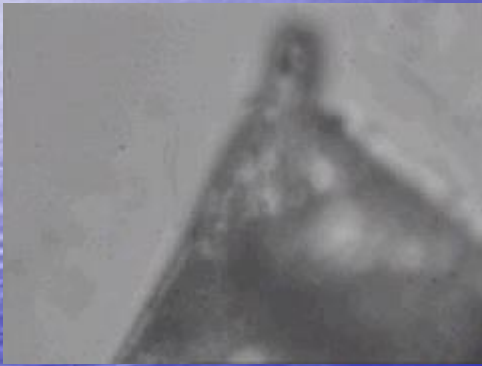


Paars vogelkopmosdiertje

Spiraalmosdiertje

Geel vogelkopmosdiertje

Avicularia vogelkopachtige Individuen



Reizen met de SWG speciale vondsten



1999: Bretagne-reis strandwerkgroep



Bloedrood ploimosdiertje

1999: Bretagne-reis strandwerkgroep



- | | | |
|------|-----------------------------------------|----------------------------|
| 2000 | gevonden tijdens de SWG-reis | W. complanata |
| 2009 | Ryland, De Blauwe ... | herbeschrijving |
| 2011 | 1 ^o melding Belgische strand | W. subtorquata |
| 2012 | Riemwiervoetjes ... | Influx op drijvende wieren |
| 2013 | Kuhlenkamp & Kind | Helgoland |
| 2014 | Vieira, | -> Watersipora subatra |

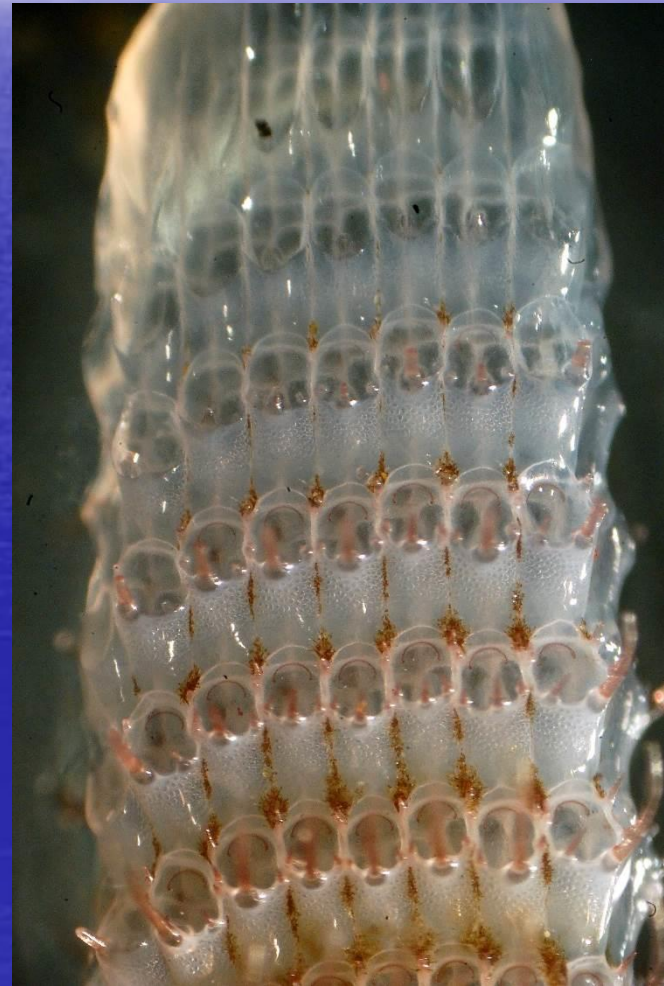
Publicaties mosdiertjes in De Strandvlo ivm SWG-reizen

2000	Bretagne 1999
2001	Northumberland 2000
2002	Dale 2001
2003	Cotentin, Frankrijk 2002
2005	Bretagne 2005
2010	Camaret

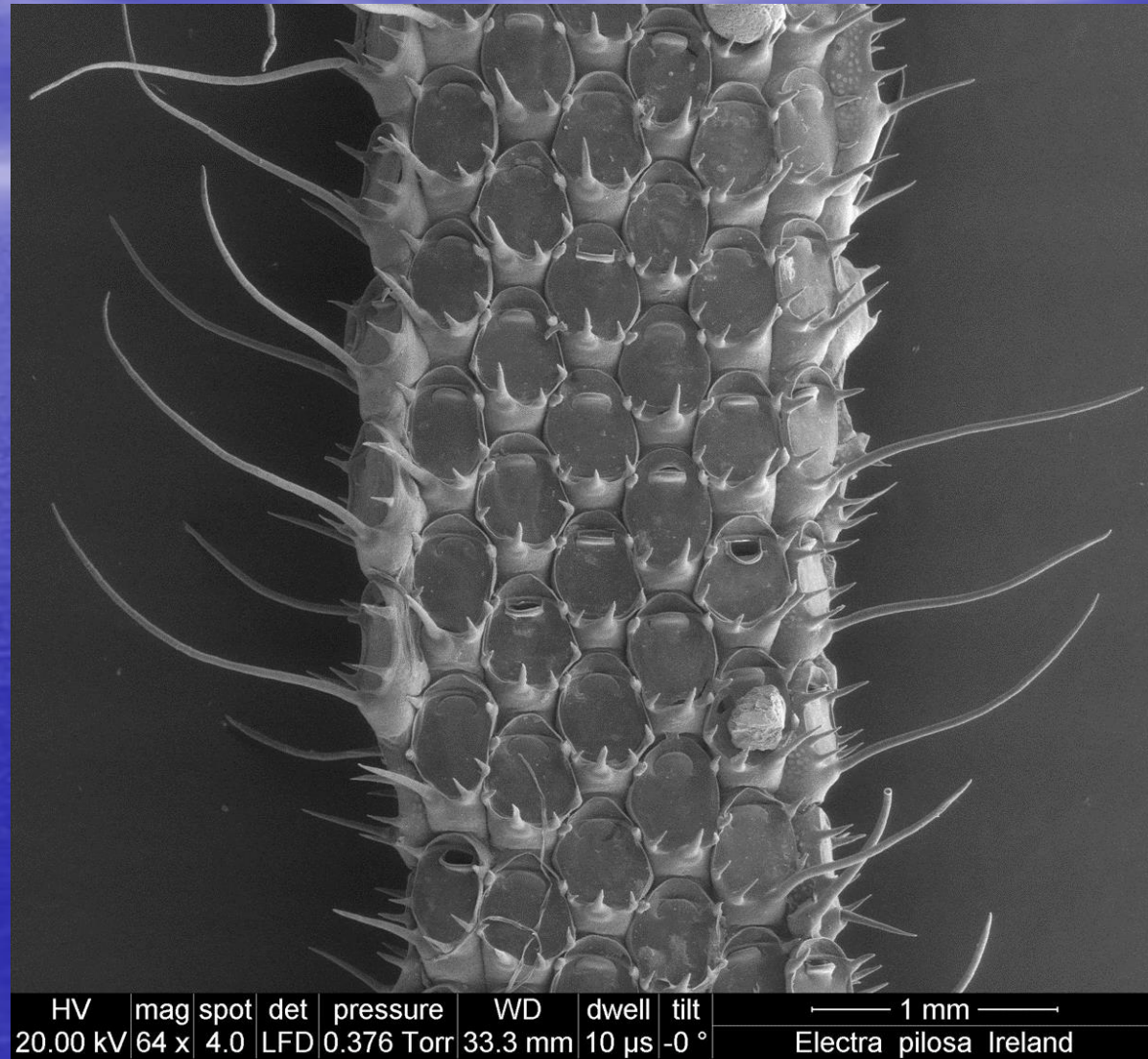
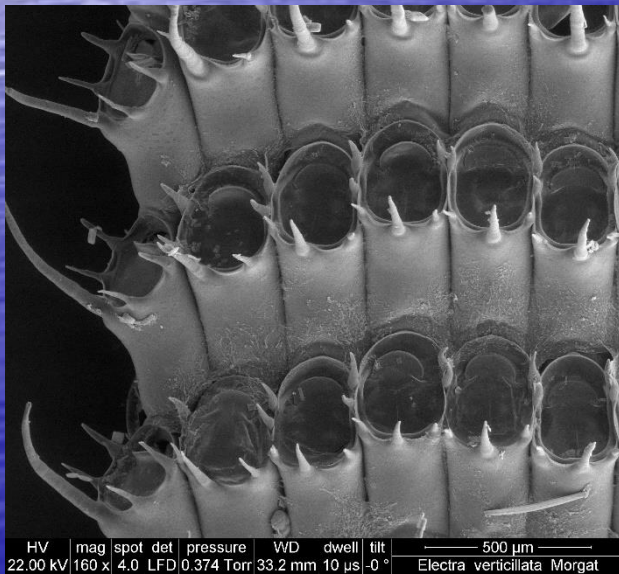
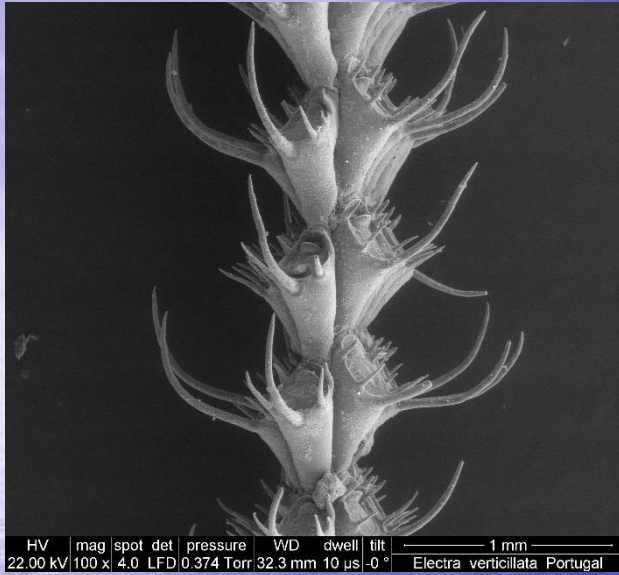
SWG reis 2010 naar Camaret



SWG reis 2010 naar Camaret Morgat, Baai van Douarnenez



SWG reis 2010 Morgat, Baai van Douarnenez



Publicaties mosdiertjes ivm SWG-reizen

Nikulina, De Blauwe, Reverter-Gil (2013).
Molecular phylogenetic analysis confirms
the species status of *Electra verticillata*.
Artikel in Bryozoan Studies 2010
+ poster op IBA congres in Kiel

Publicaties mosdiertjes ivm SWG-reizen

Le-Val-André 2014



A

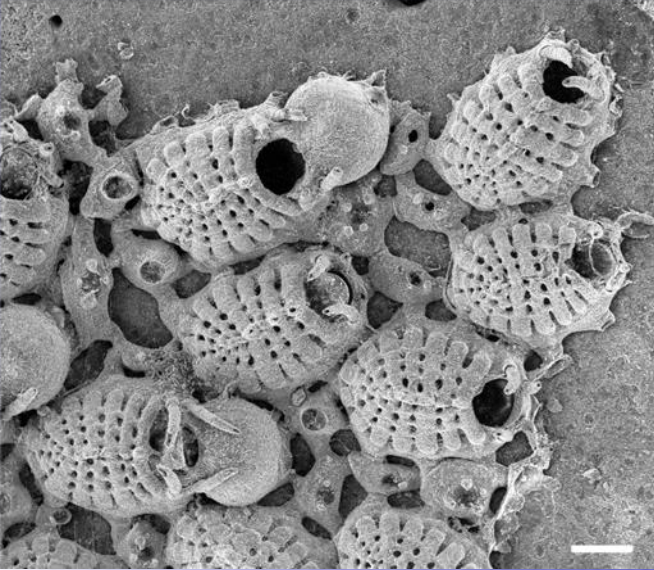




100 schelpen
1226 kolonies
13 kolonies op de bolle zijde
55 soorten mosdiertjes

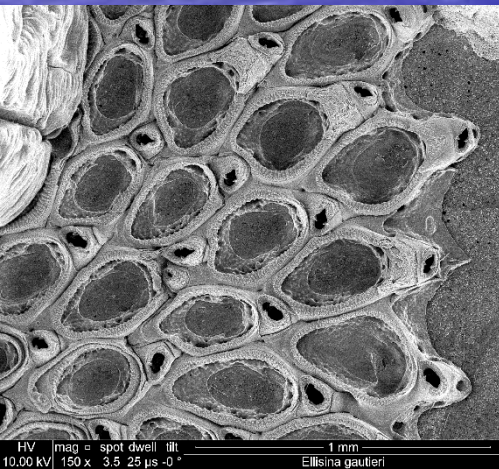
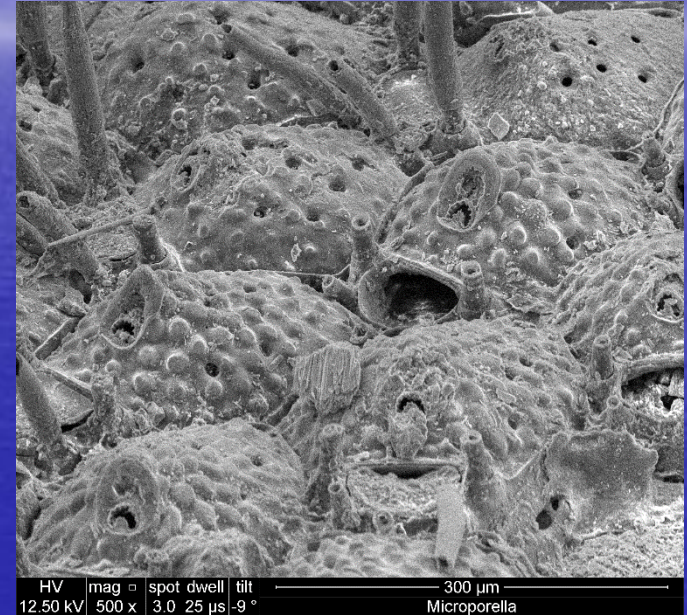


40 schelpen
419 kolonies



Distansescharella seguenzai
1° melding Frankrijk en GB

Nieuwe *Microporella* sp.



Zeldzame *Ellisina gautieri*
in 21 schelpen

IBA congrés Australië

Artikel:

Bryozoans on disarticulated shells from Pléneuf-Val-André, Brittany, France



Eigen land en Nederland - op aangespoeld materiaal



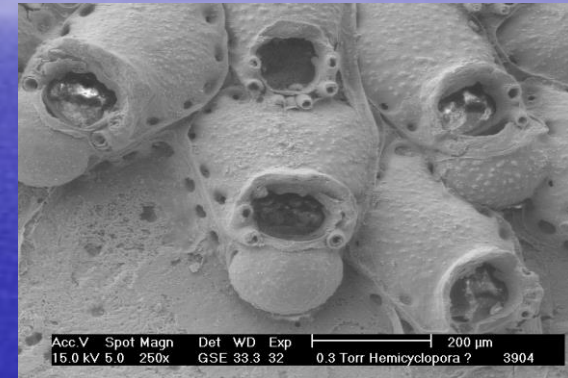
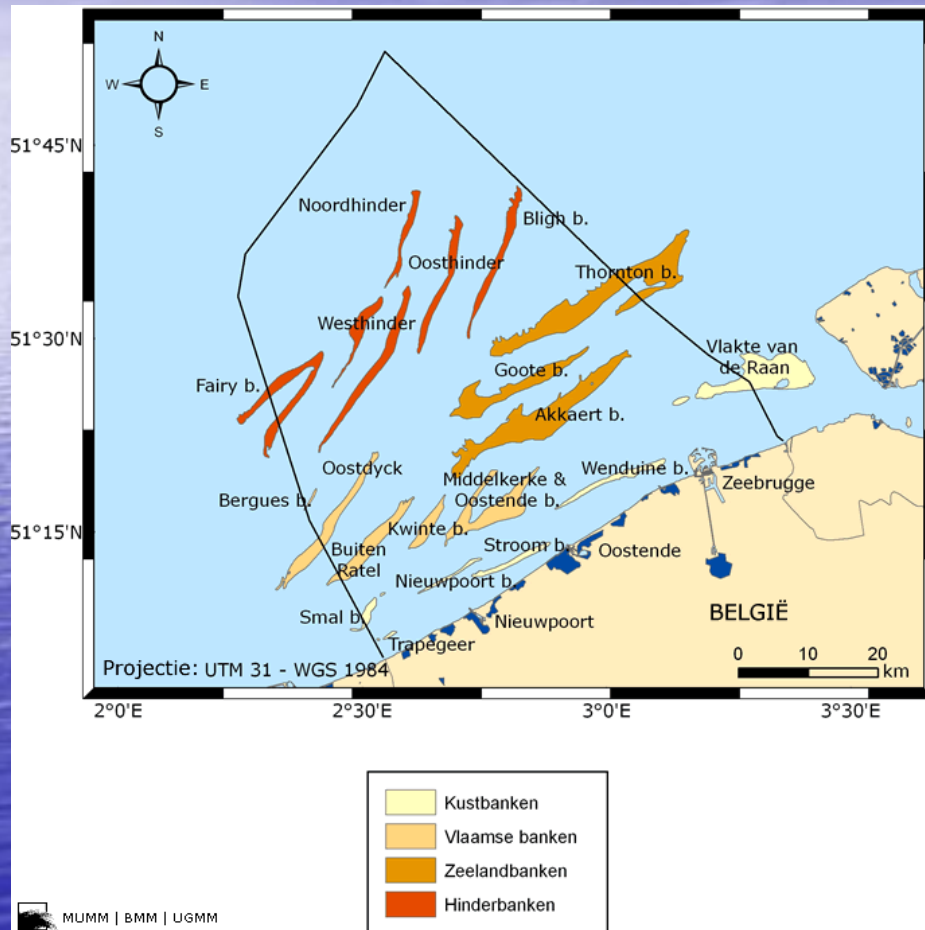
75 soorten, waarvan 46 uitheems

- Jachthavens
- Strandhoofden
- Nederlandse rivierdelta

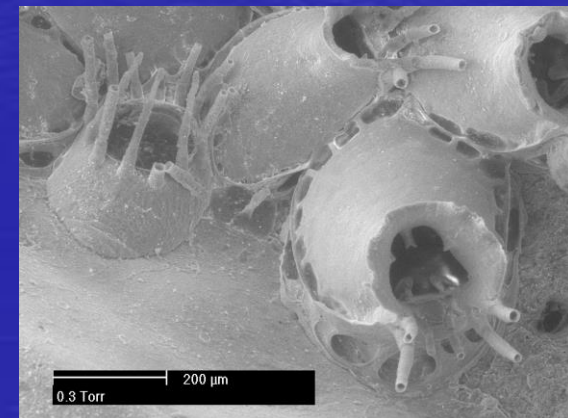


2003: Strandophoging Knokke

De Blauwe, H. (2006). Bryozoa on shells from the Kwintebank. Bulletin KBIN



Escharella gilsoni

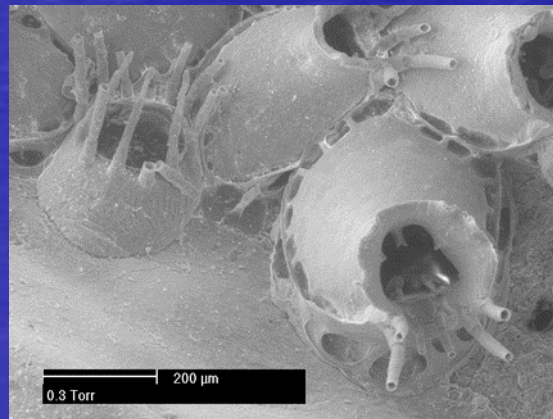


Escharoides bishopi

Wasson, De Blauwe (2014). Two new records of Bryozoa from British waters.

Escharoides bishopi, zeldzame soort, altijd in lege schelpkleppen

5 kolonies	Kwintebank	De Blauwe, 2006, 2009
20 in 1 schelp	Le Val Andre	De Blauwe, 2006, 2009
6	Hinderbank	De Blauwe, 2009
1	Buiten Ratel	De Blauwe, 2012
1	Oostkust Engeland	Wason & De Blauwe, 2014
11 in 1 schelp	Le Val Andre	De Blauwe,
1	Thames estuarium	De Blauwe,

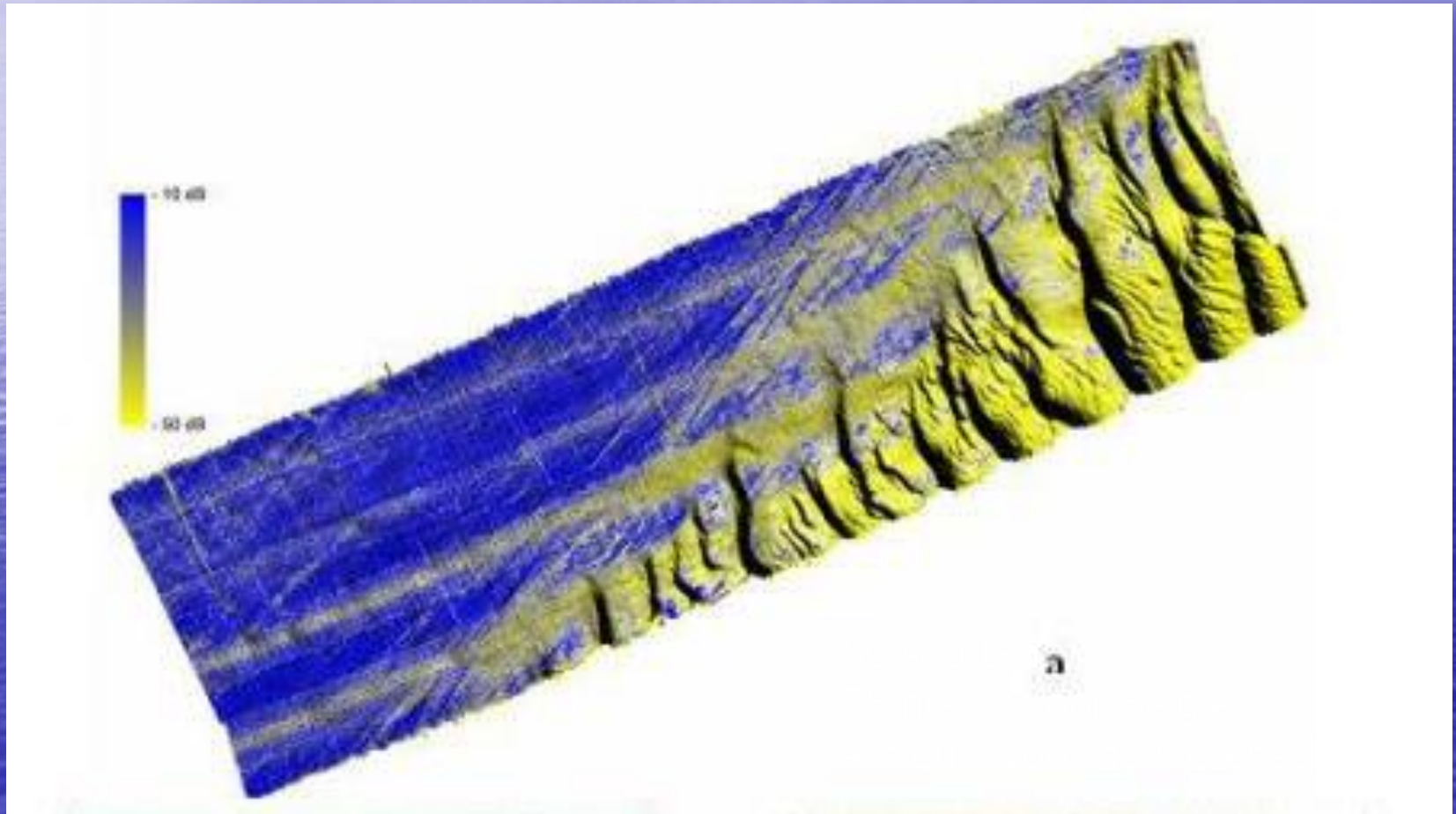


2005

Belgica

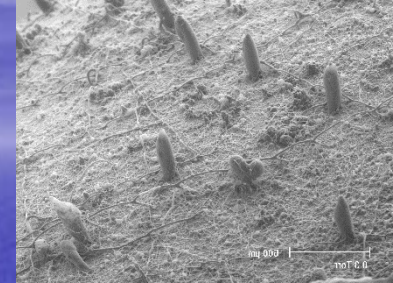


Vergelijking 1905 met 2005



In schelpkleppen

2004 Schelpen anders bekeken.



2006 Bryozoa on shells from the Kwintenberg.

2006 Een opmerkelijke diversiteit aan Bryozoa op de Hinderbanken: een tussentijds verslag.

2009 Diversity and long-term changes in the bryozoan fauna of the Hinder banks

Met voordracht in Oslo

+ voorstelling boek aan IBA



Aantal soorten 2009

- Totaal 179
 - Aangespoeld : 75

- waarvan 46 uitheems, 1 uit Centraal-Amerika
 - Inheems: 133

- Ingevoerd: 7

nu

187

Puellina venusta
Reptadeonella insidiosa
Smittina crystalina
Umbonula oviceolata
Cribrilina mutabilis

49

135

Triticella flava,
Celleporella hyalina

(FK op Ensis, MF Oosterschelde)

9

Biflustra grandicella
Schizoporella unicornis

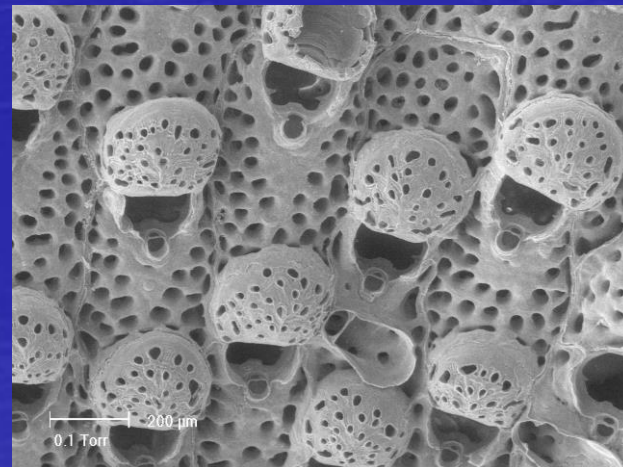
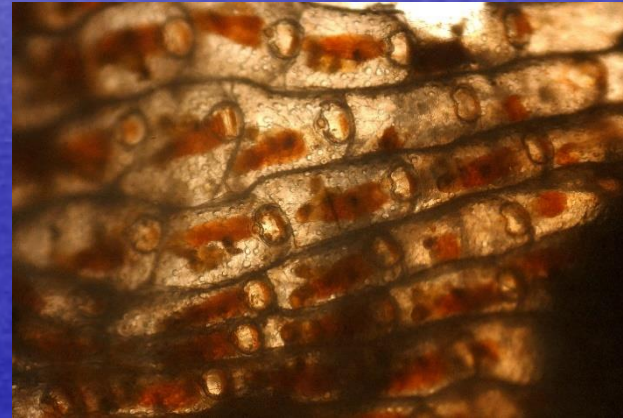
Mosdierboeken

- Denemarken: Mosdyr Marcus 1940
- België: franstalig, 37 soorten Loppens 1948
- Frankrijk: Faune de France Prenant & Bobin 1966
- Nederland: KNNV-tabel 43 soorten Lacourt 1978
- Groot-Brittanië: Synopses Hayward & Ryland 1999

- België + Nederland: Mosdiertjes 179 soorten De Blauwe 2009

- 500 gedrukt, ongeveer 80 over

Combinatie kolonie bino SEM



Hoe fout is dit boek?

P 142: 36

a) ----→ 37

b) ----→ 47 ipv 51

exoten

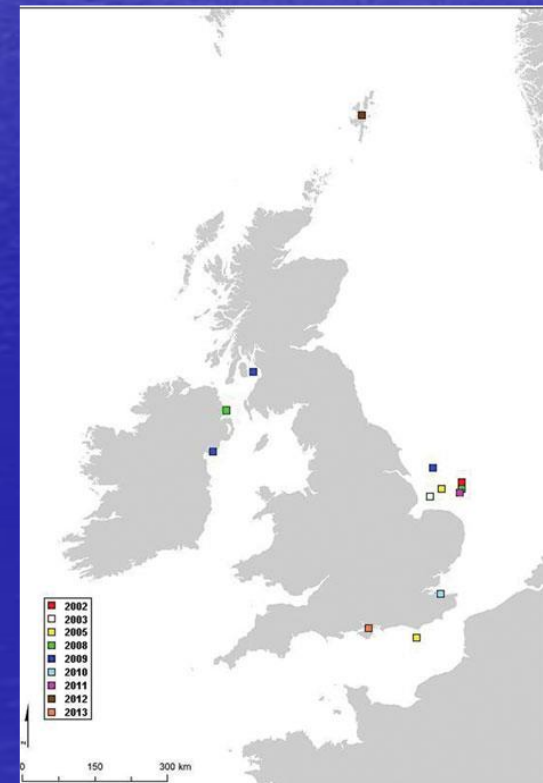
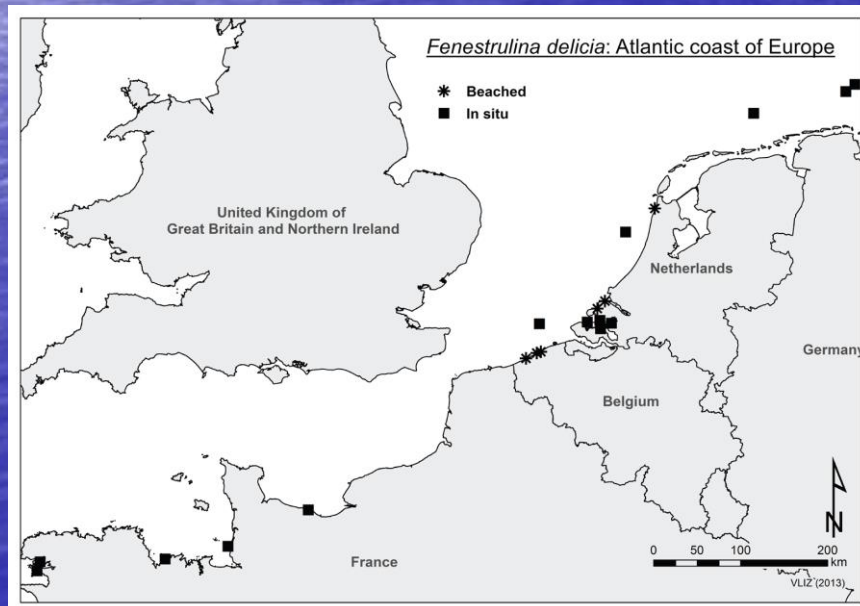
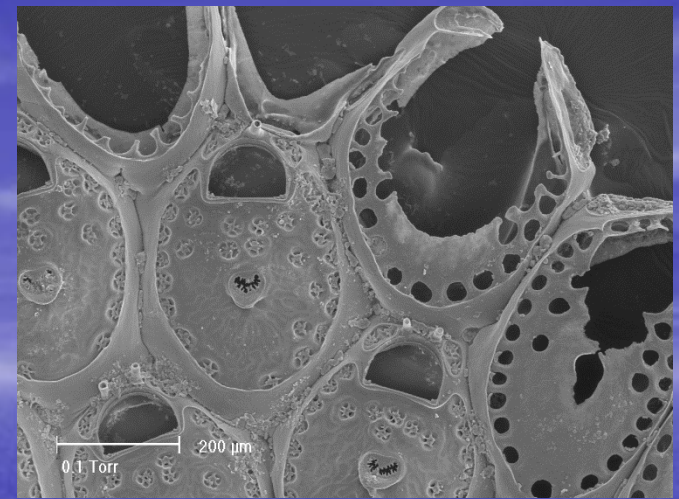


Fenestrulina delicia

De Blauwe 2008. *Fenestrulina delicia*, een nieuw mosdiertjes in Europa. De Strandvlo

De Blauwe et al. 2014. Recent observations of the introduced *Fenestrulina delicia* in Western Europe. Studi Trent. Sci. Nat.

Wason & De Blauwe, 2014



Smittoidea prolifica

De Blauwe & Faasse (2004). *Smittoidea prolifica*, a Pacific bryozoan introduced to The Netherlands. Bulletin KBIN

Zeeland
Waddenzee
duitse noordzeekust
Helgoland
Tiefe Rinne



Onverwacht mosdiertje

Tricellaria inopinata



Onverwacht mosdiertje

Tricellaria inopinata

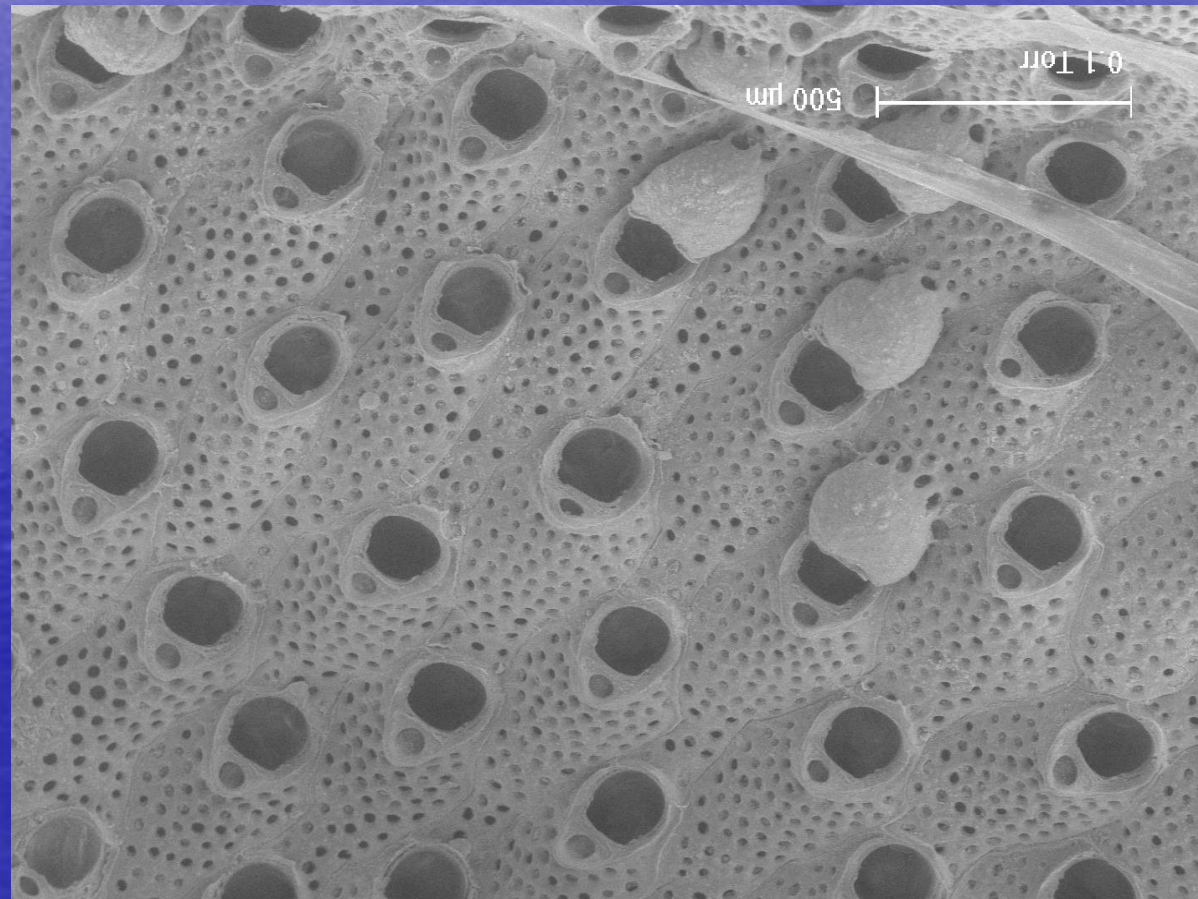
De Blauwe & Faasse (2001). Extension of the range of the Bryozoans *Tricellaria inopinata* and *Bugula simplex* in the north-east Atlantic ocean. Ned. Faunist. Meded.

De Blauwe (2002). Determinatie en verspreiding van *Tricellaria inopinata*, een recente immigrant uit het noorden van de Stille Oceaan. Het Zeepaard

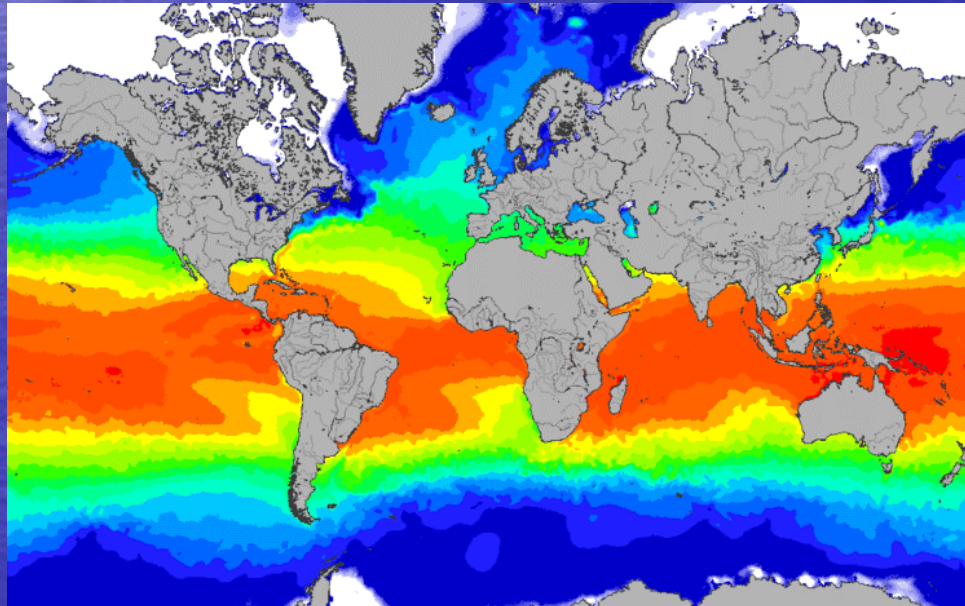
Cook; Stehlikova; Beveridge; Burrows; De Blauwe; Faasse (2013). Distribution of the invasive bryozoan *Tricellaria inopinata* in Scotland and a review of its European expansion. Aquat. Invasions

Pacificincola perforata

De Blauwe (2006). On the taxonomy and distribution of the family Pacificincolidae, with the description of a new genus. Bulletin KBIN



Biflustra grandicella



Biflustra grandicella

2017 een warmteminnend mosdiertje nieuw voor Nederland en Europa



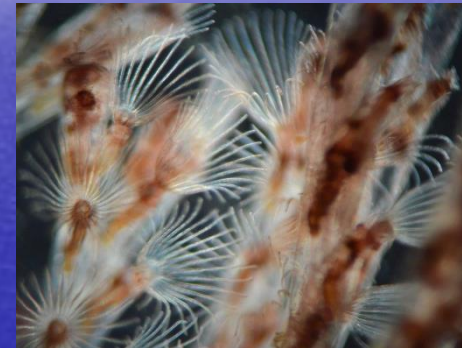
Biflustra grandicella

2018 Mariska van dam = nog steeds aanwezig



Bugula neritina Paars vogelkopmosdiertje

Faasse 2007. Het exotische mosdiertje *Bugula neritina* in Nederland.
Faasse & Ligthart, 2016. Paarse invasie (*Bugula neritina*).



Mart Karremans

2017 Wim Kuijper & Martin Cadée

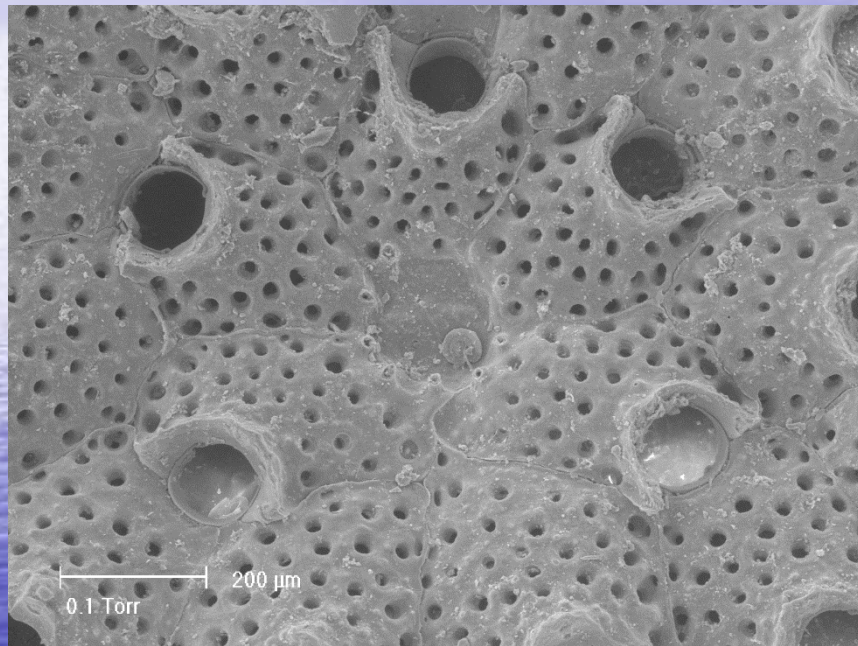
spoelt massaal aan in NL



Bevat veel bryostatine,
Onderzocht in kankerbestrijding

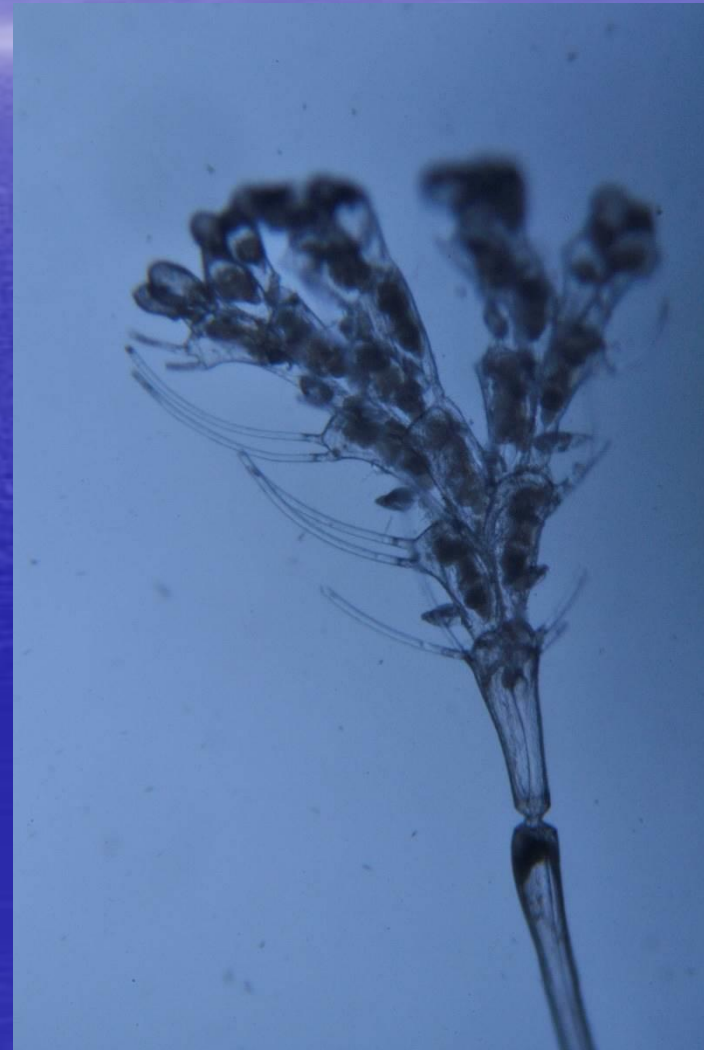
Ellen van der Niet

Kind, De Blauwe, Faasse, Kuhlenkamp (2015). *Schizobrachiella verrilli* new to Europe. Marine Biodiversity Records



Caulibugula arcasounensis

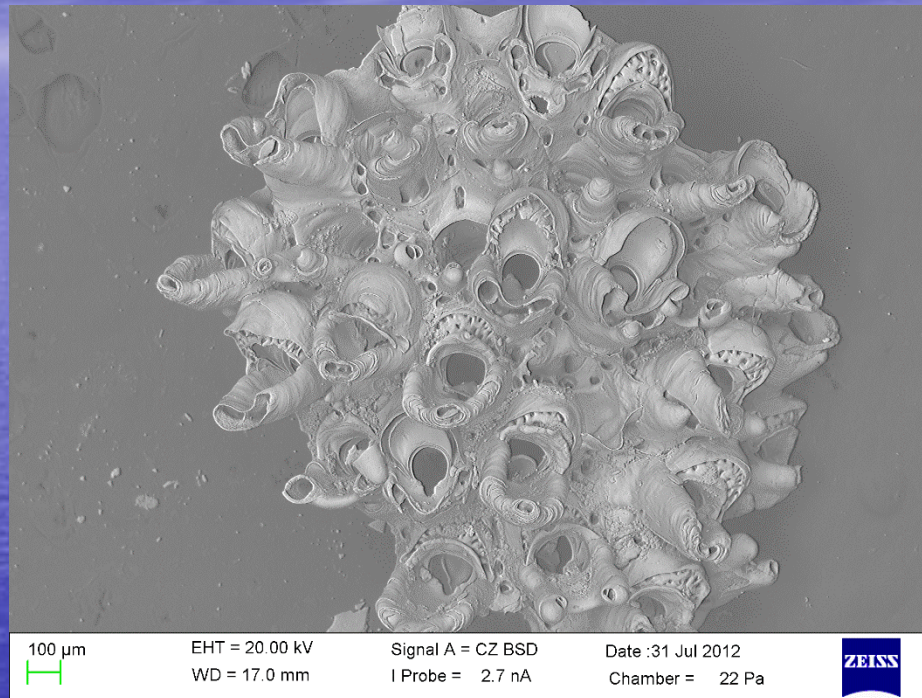
De Blauwe, H. (2005). A new species of *Caulibugula* from France. Bulletin KBIN



Andere nieuw beschreven soorten



Reis Portugal



- *Celleporina algarvensis* Souto, Reverter-Gil, De Blauwe, (2014-2015)

Antarctica



Cédric d'Udekem



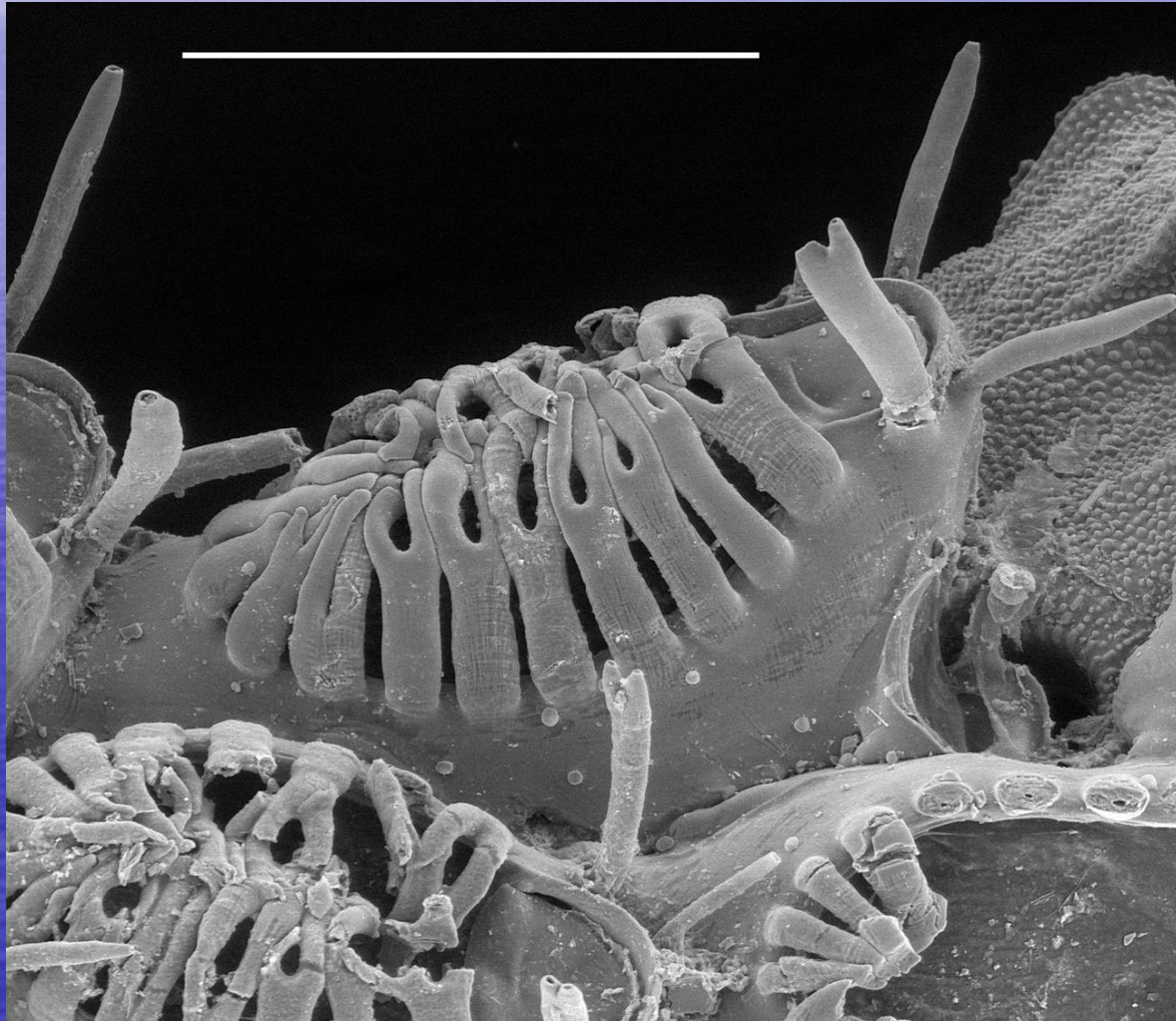
Antarctica

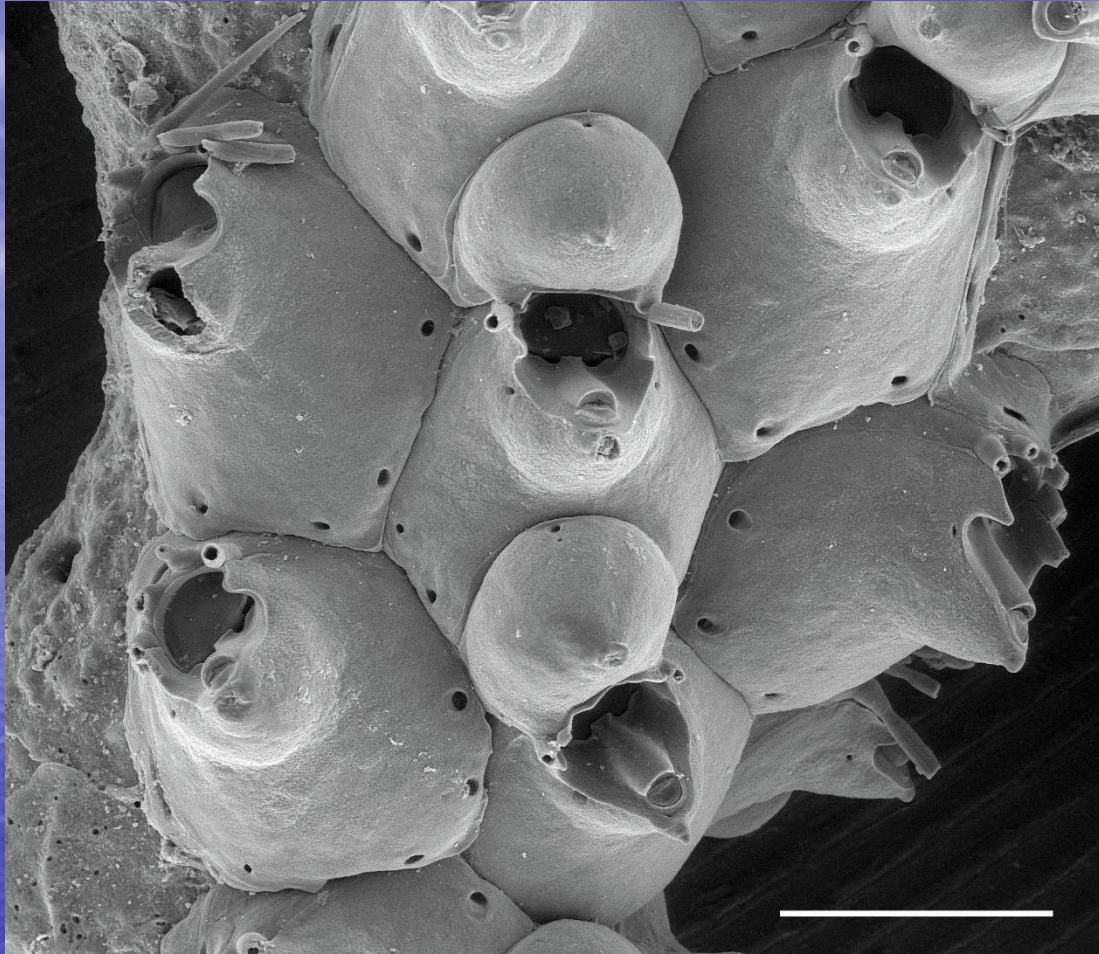
- 120 soorten in 1 staal van 600 m diep
- 14 nieuw voor de wetenschap

Voordracht in Sicilië tijdens IBA congres

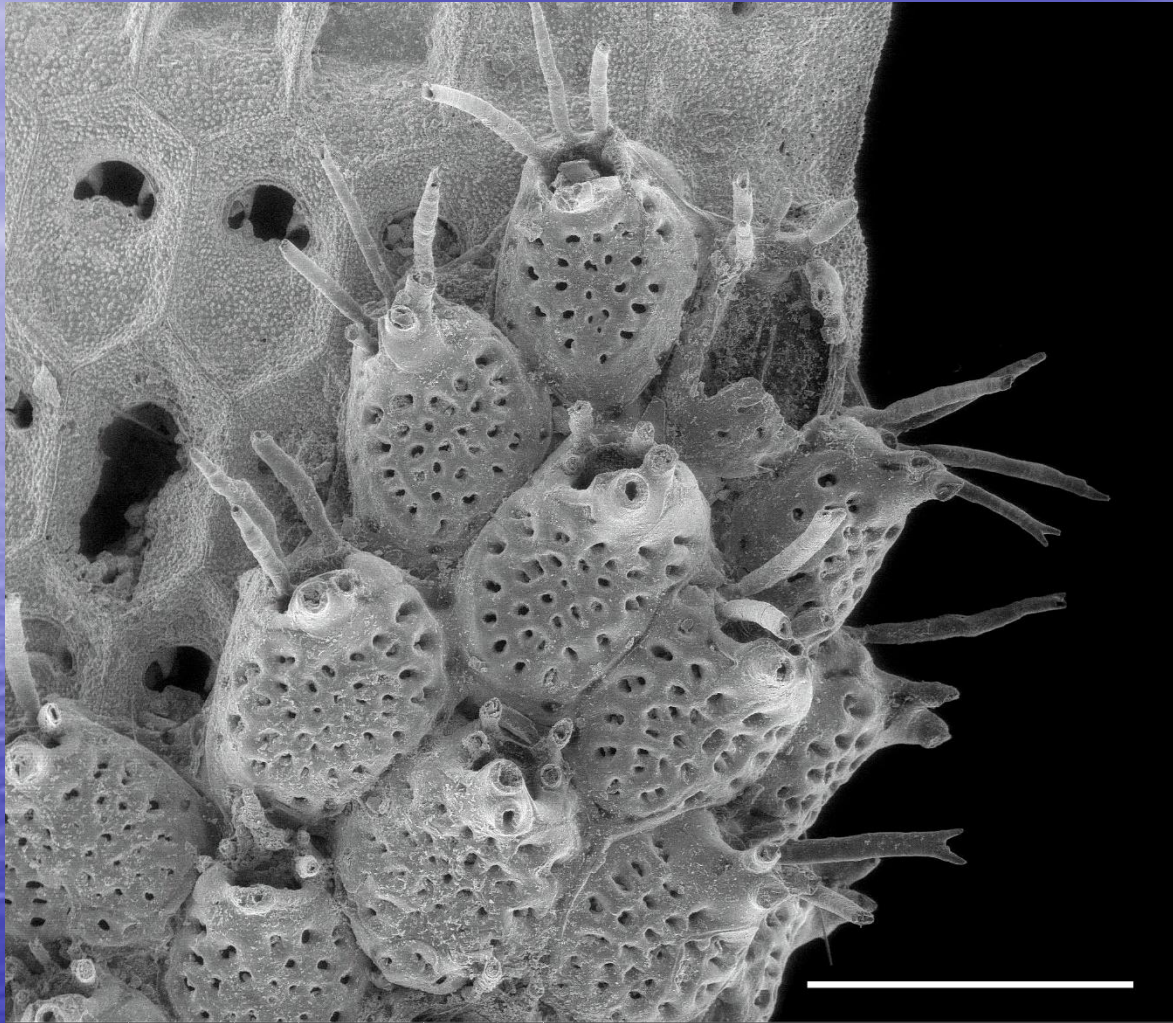
De Blauwe & Gordon (2014). New bryozoan taxa from a biodiversity hotspot in the Eastern Weddell Sea. Studi Trent. Sci. Nat.

Klugerella antarctica

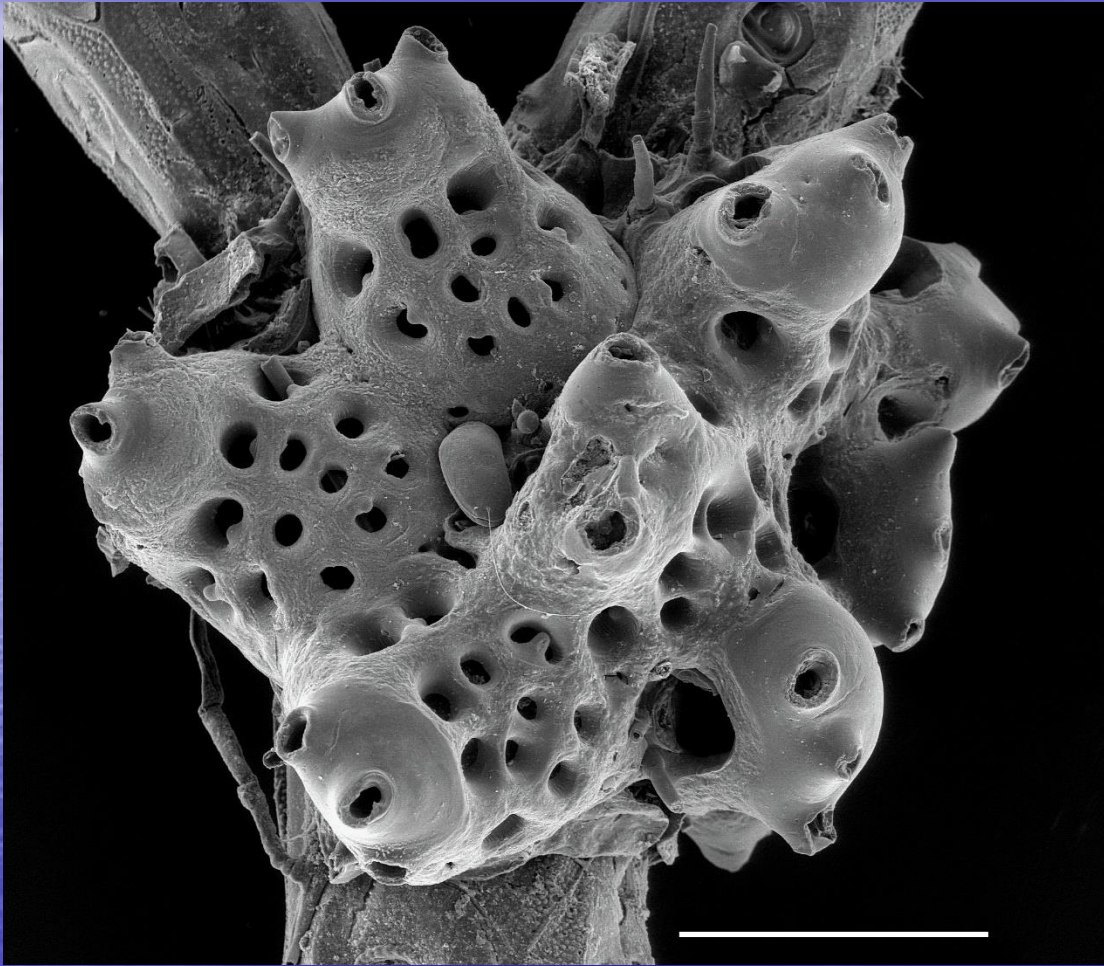




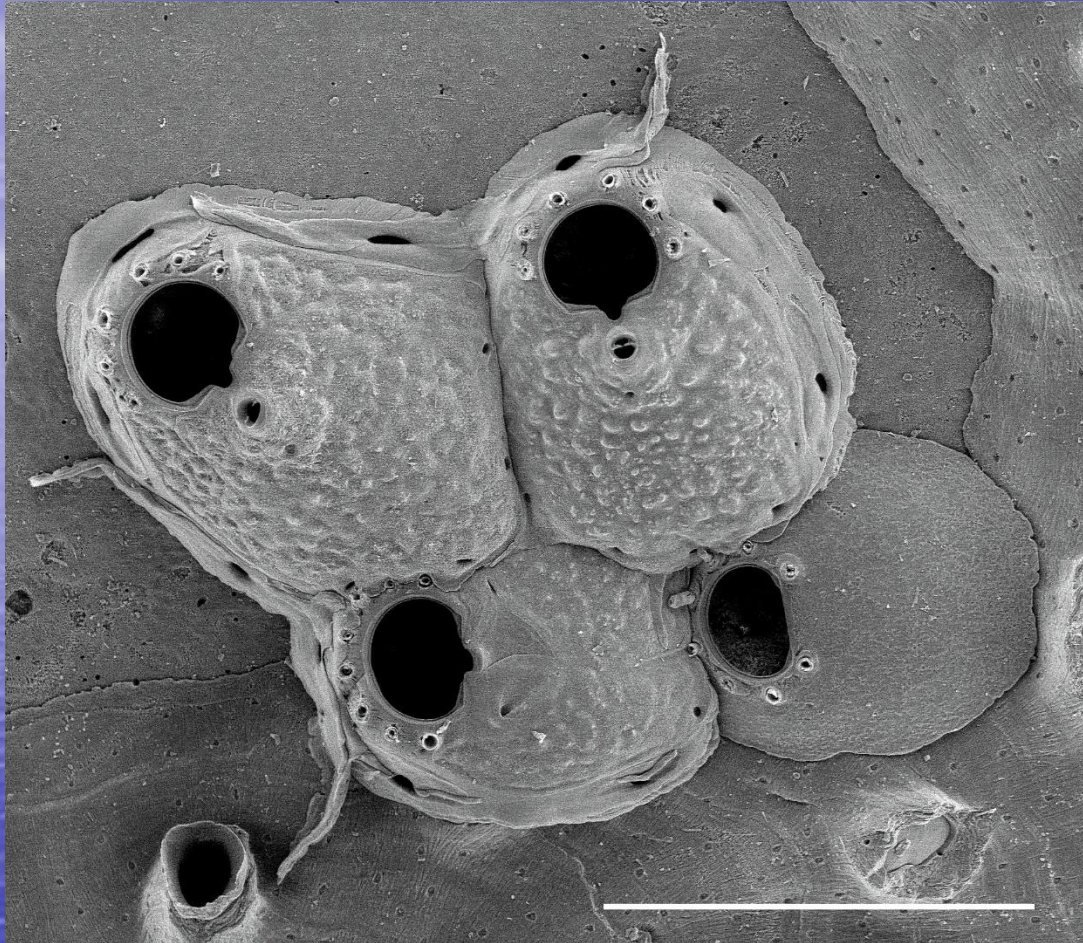
Aimulosia weddellensis sp. nov.



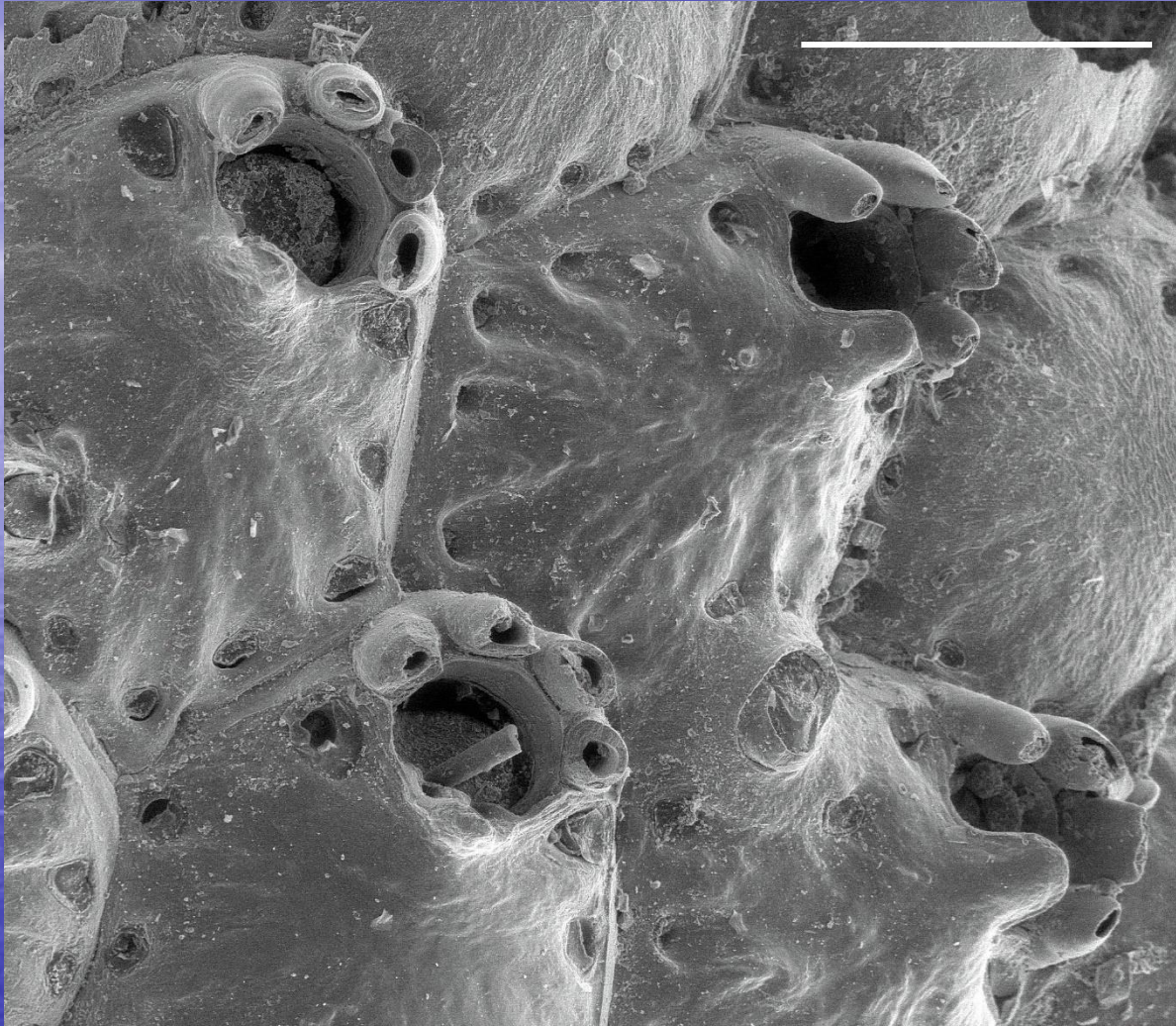
Arachnopusia multiporosa sp. nov.



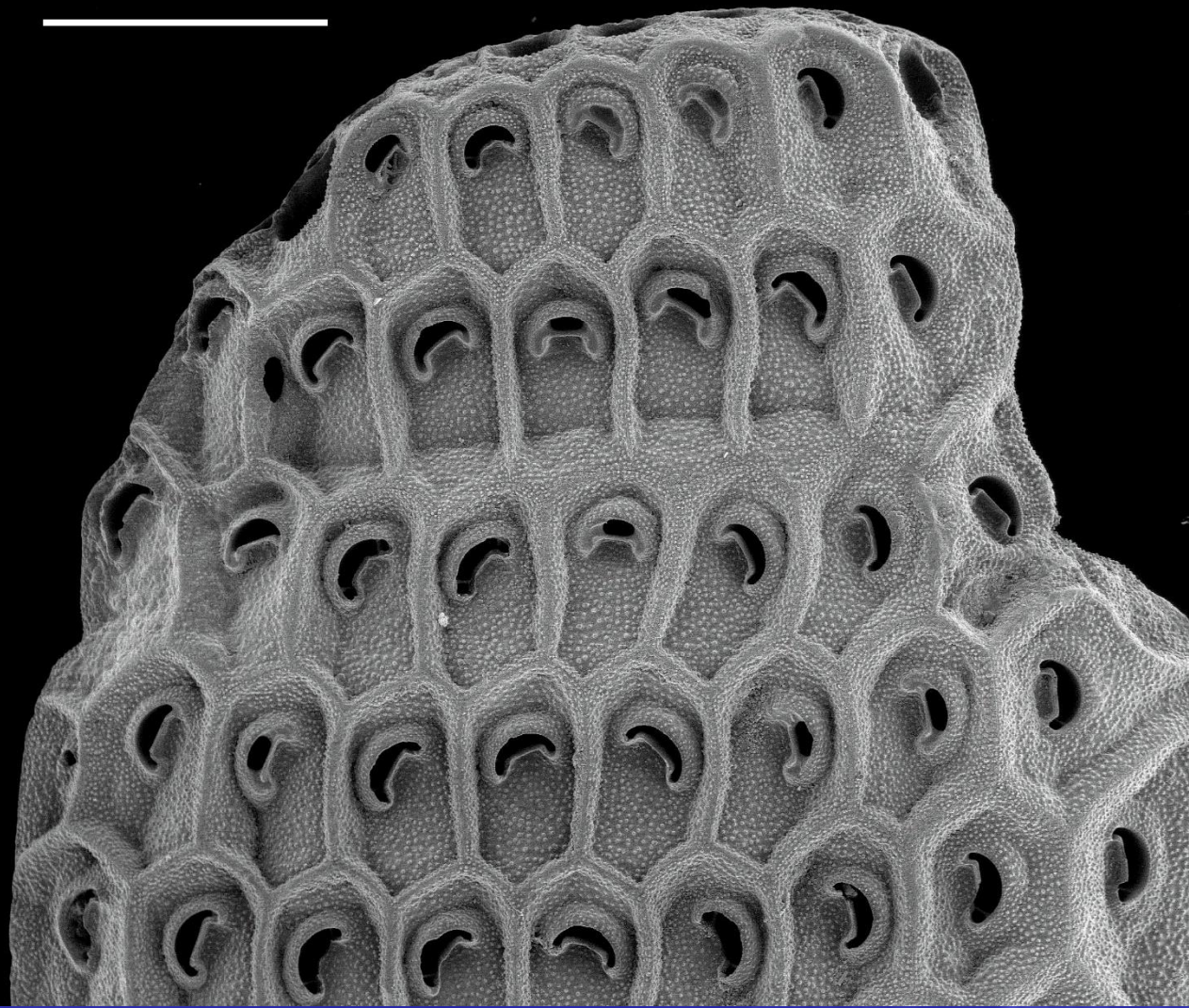
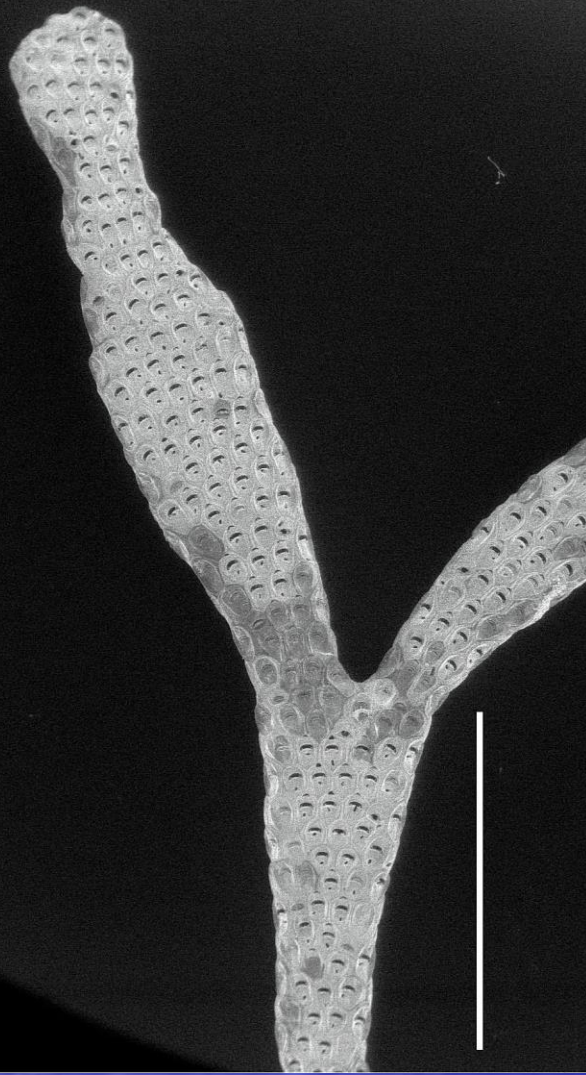
Arachnopusia tumida sp. nov.



Buffonellodes umbonata sp. nov.

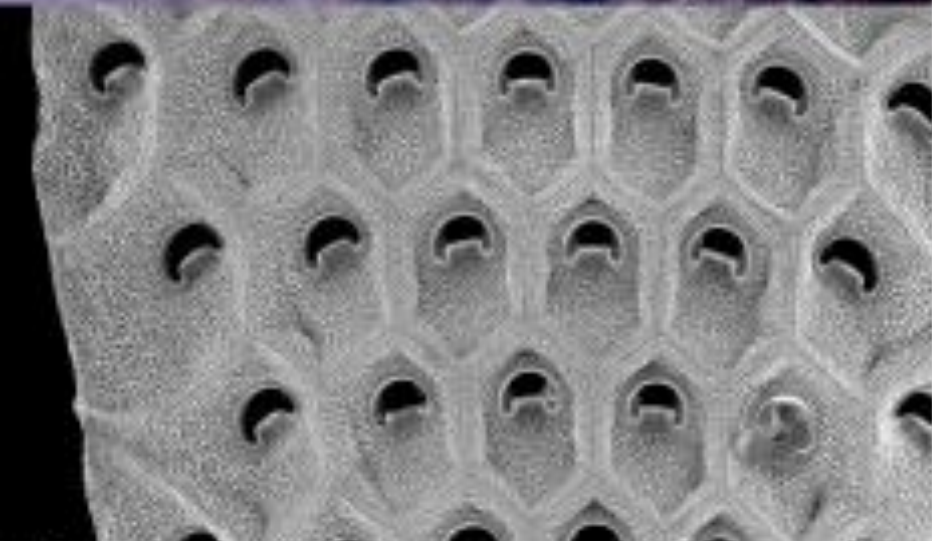


Exochella quadrispinosa sp. nov.



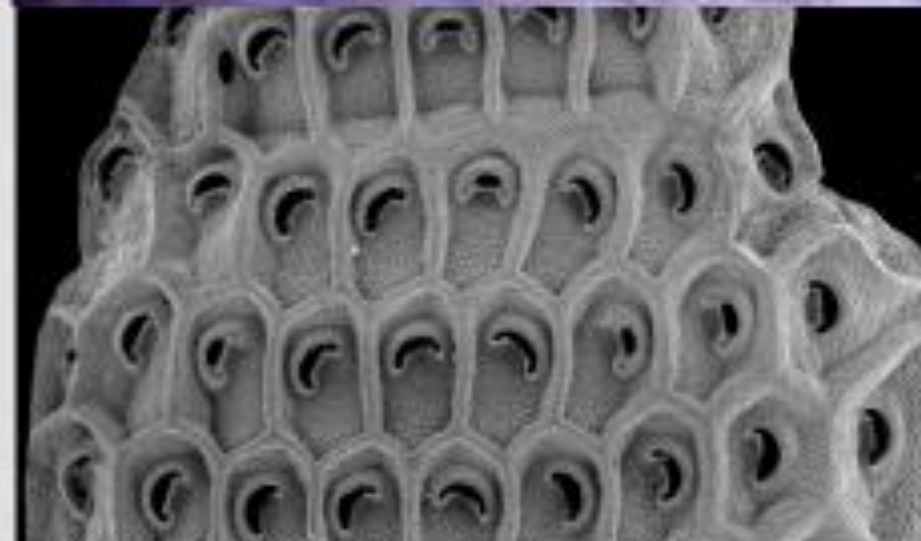
Melicerita depressa sp. nov.

MELICERITA OBLIQUA



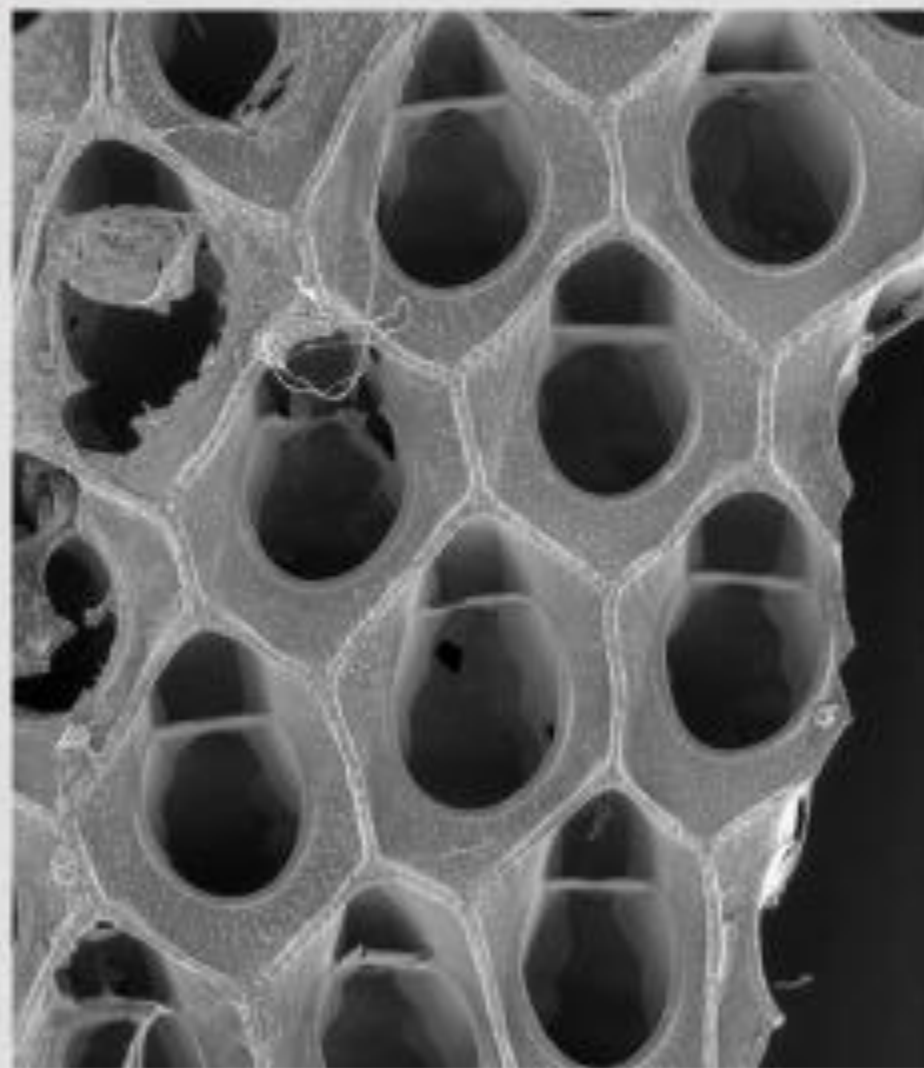
HV mag = spot pressure tilt
20.00 kV 40x 4.0 3.75e-1 Torr 0.1
2 mm
Step 19: Melicerita obliqua

MELICERITA TRANSVERSA
SP. NOV.

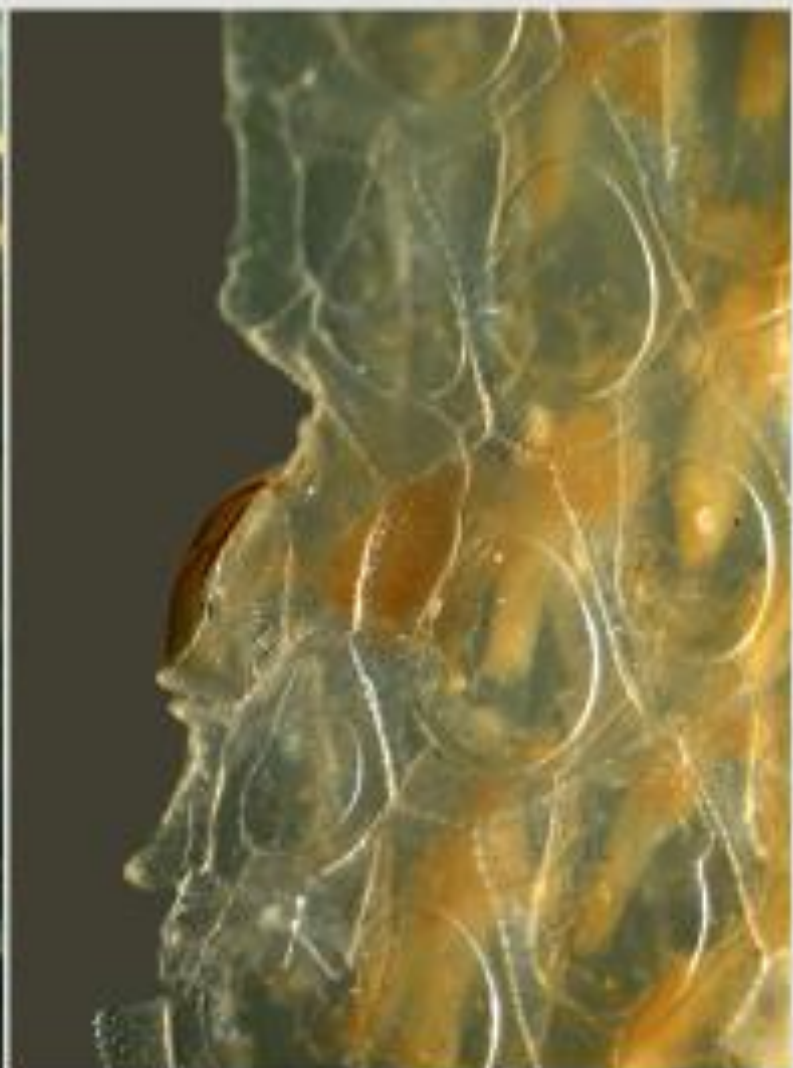


HV mag = spot pressure tilt
20.00 kV 40x 4.0 3.75e-1 Torr 0.1
2 mm
Step 20: Melicerita transversa

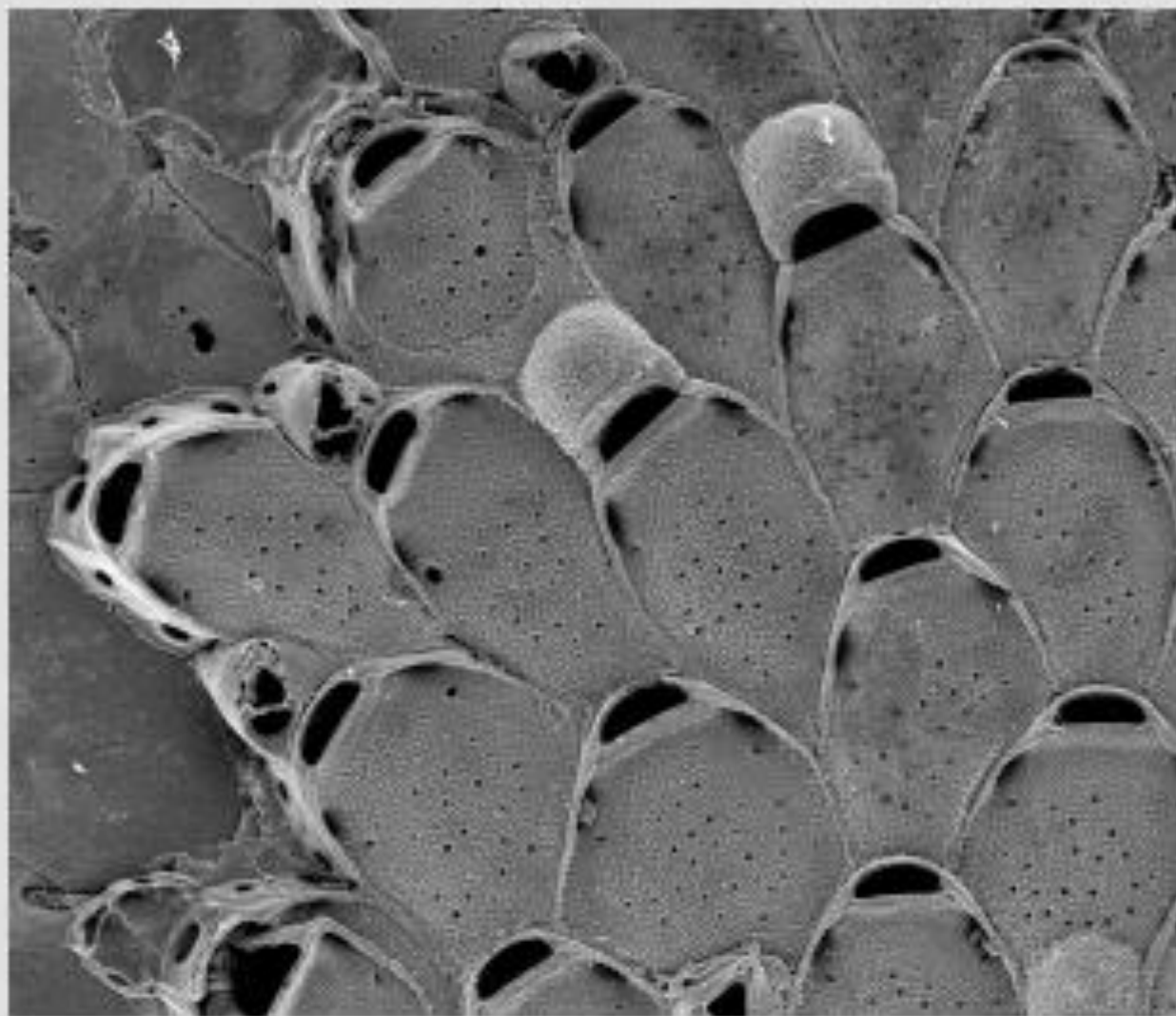
MEMBRANICELLARIA PELLUCENS
SP. NOV.



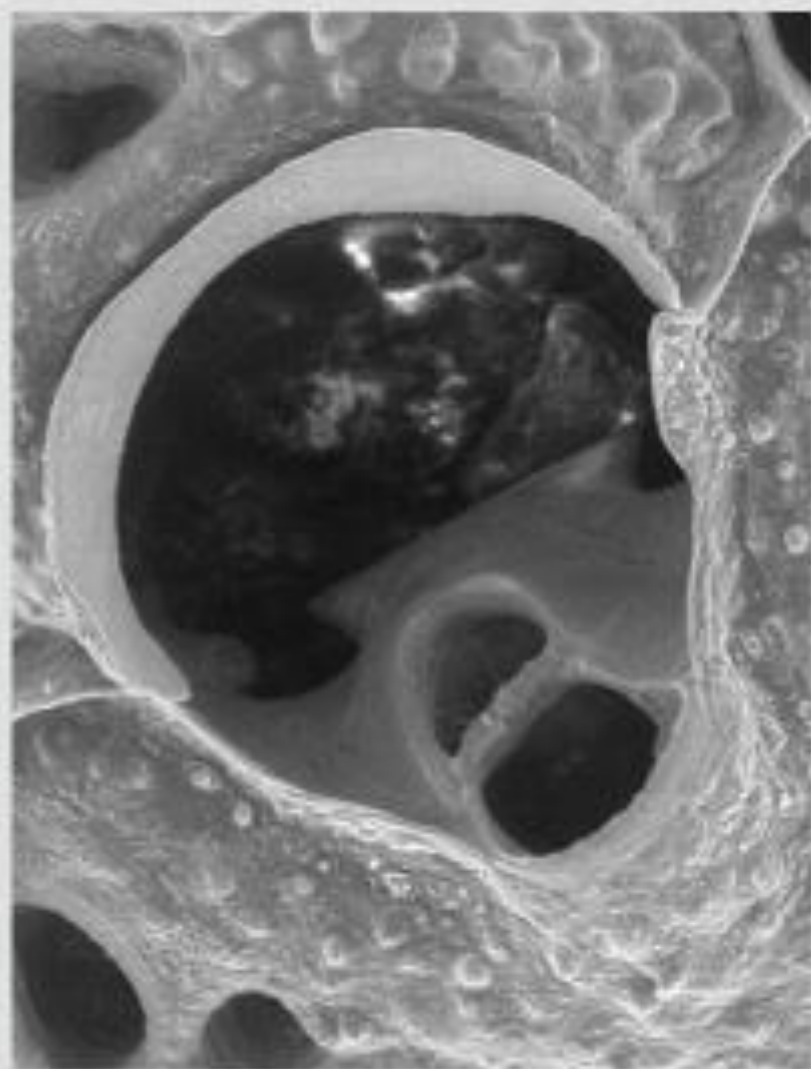
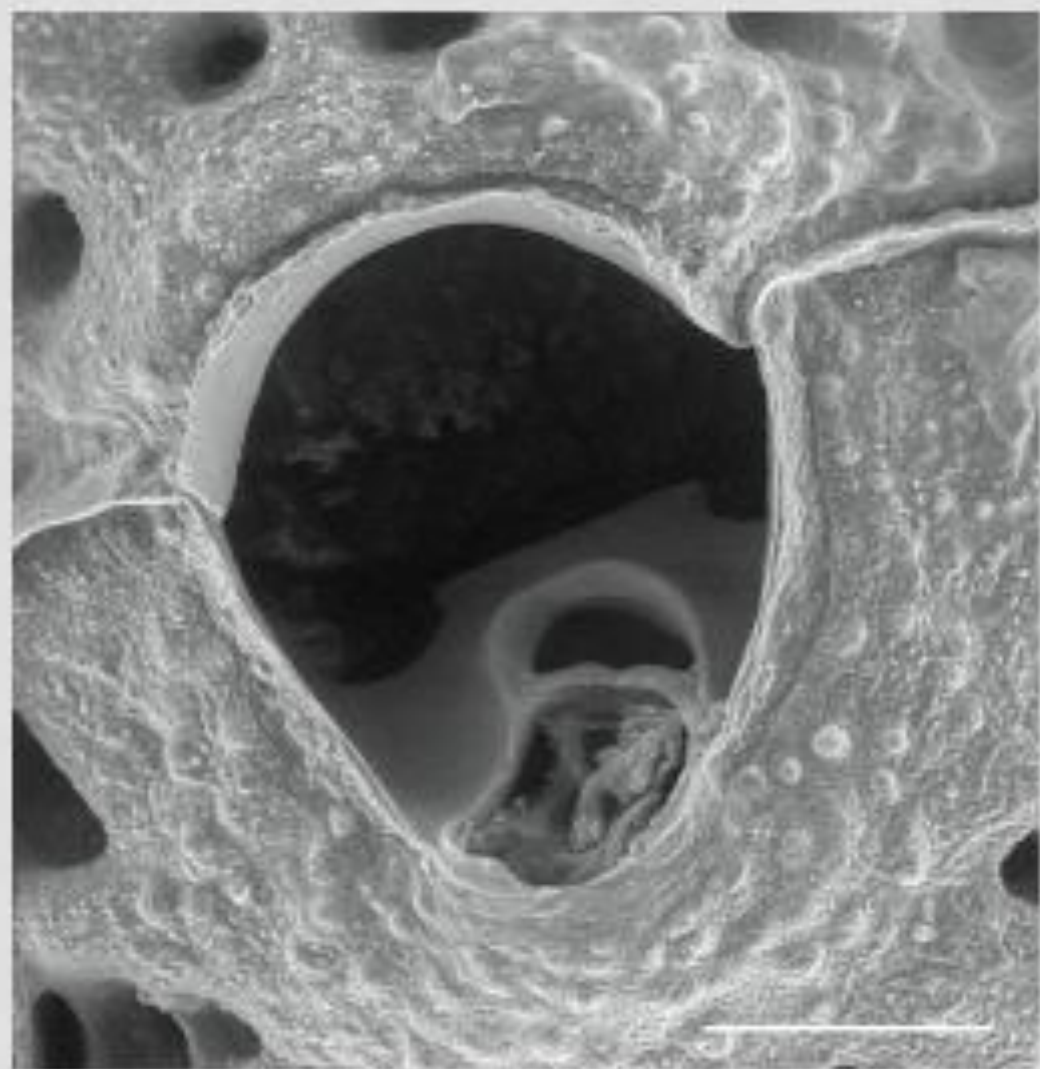
MEMBRANICELLARIA PELLUCENS
SP. NOV.



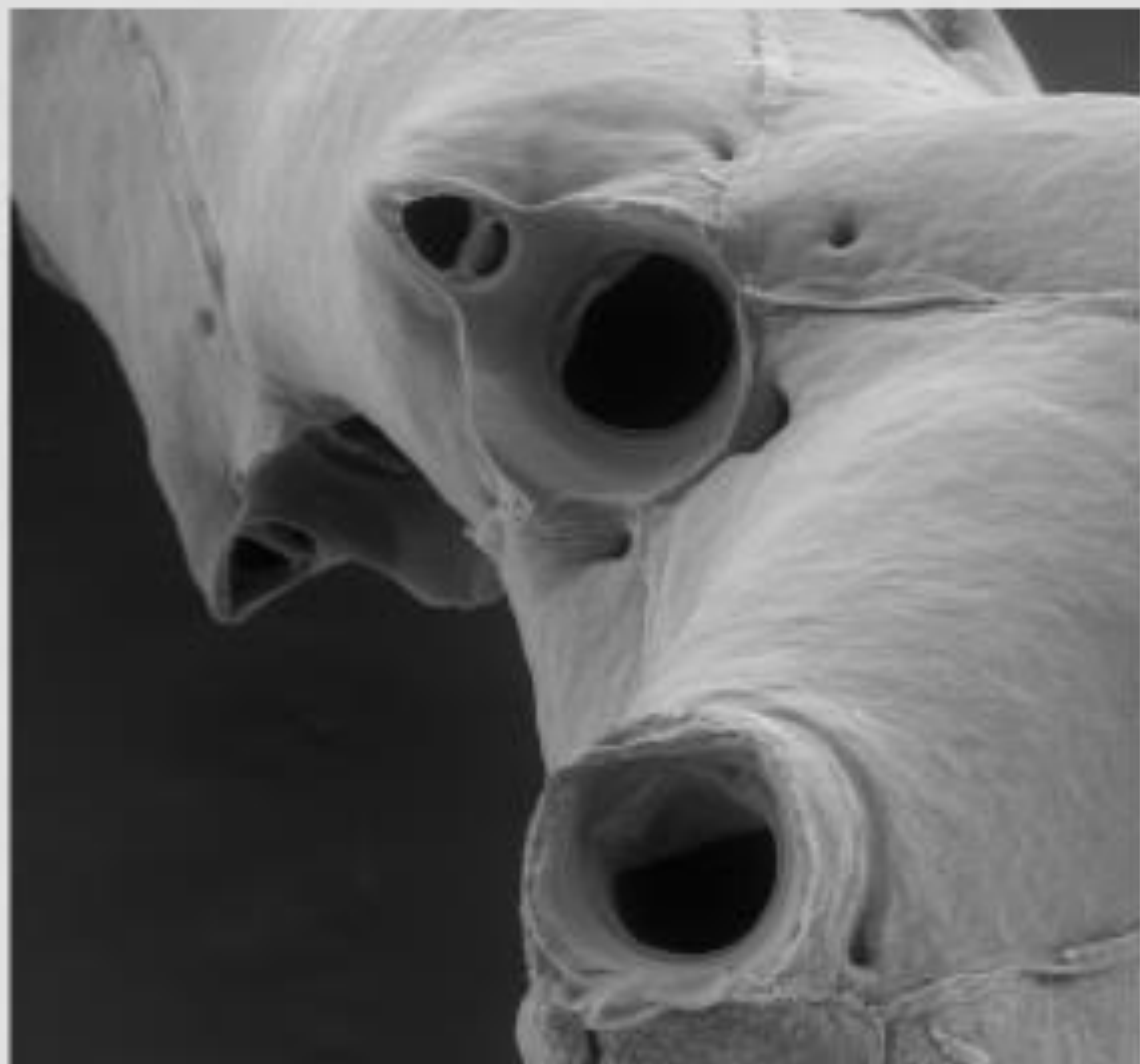
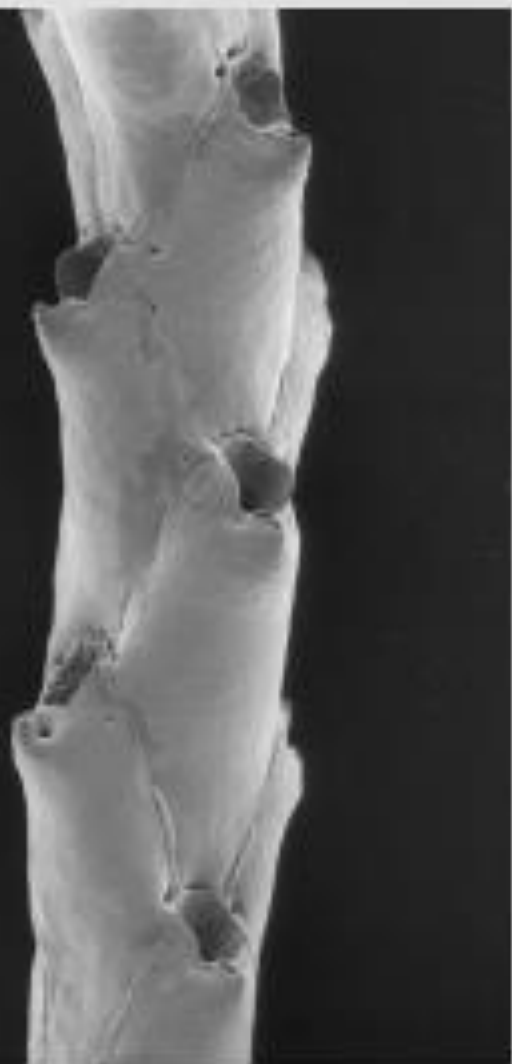
MICROPORA ASPINOSA SP. NOV.

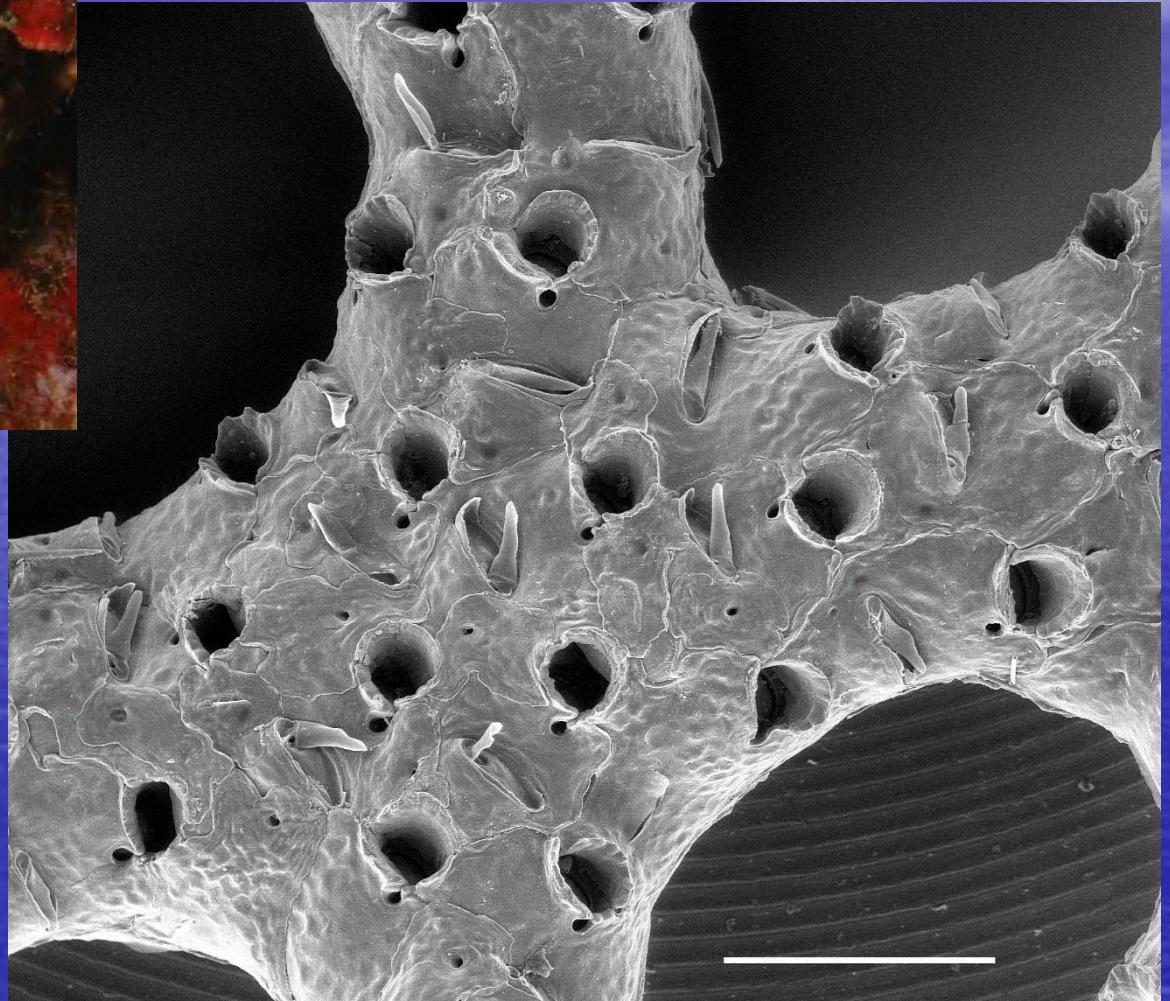


SMITTINA CURVIROSTRATA SP. NOV.



SPIGALEOS ELEGANS SP. NOV.





Reteporella dudekemi sp. nov.

Lopende projecten

- Duik De Noordzee Schoon
- onbekende soort Noorwegen
- nieuwe lading Antarctica (Cédric)
- Offshore installaties windenergie, gas, ...

Records of five bryozoan species from offshore gas platforms rare for the Dutch North Sea

- aangespoeld in Nederland
- pliocene mosdiertjes van Doel

DNA en RNA onderzoek

Zeekantwerk -> RNA Oslo

2018 -> Ctenostomata



Dank voor uw aandacht