

Bivalvia of the SCB Adult-Subadult-Juvenile (Part III)

Order Carditida (Families Crassatellidae & Carditidae)

Order Lucinida (Families Lucinidae & Thyasiridae)

Order Venerida (Families Lasaeidae & Cardiidae)

as Listed in SCAMIT Edition 13

Subclass Heterodonta

1. Umbones prominent
2. Lunule and escutcheon usually present
3. Hinge plate strongly developed
4. Ligament usually opisthodontic, external and parivincular

Subclass Heterodonta

Order Carditida

- 1. Hinge plate strong; cardinal teeth strong; lateral teeth weak or absent**
- 2. Ligament external**
- 3. Pallial line entire or with sinus**

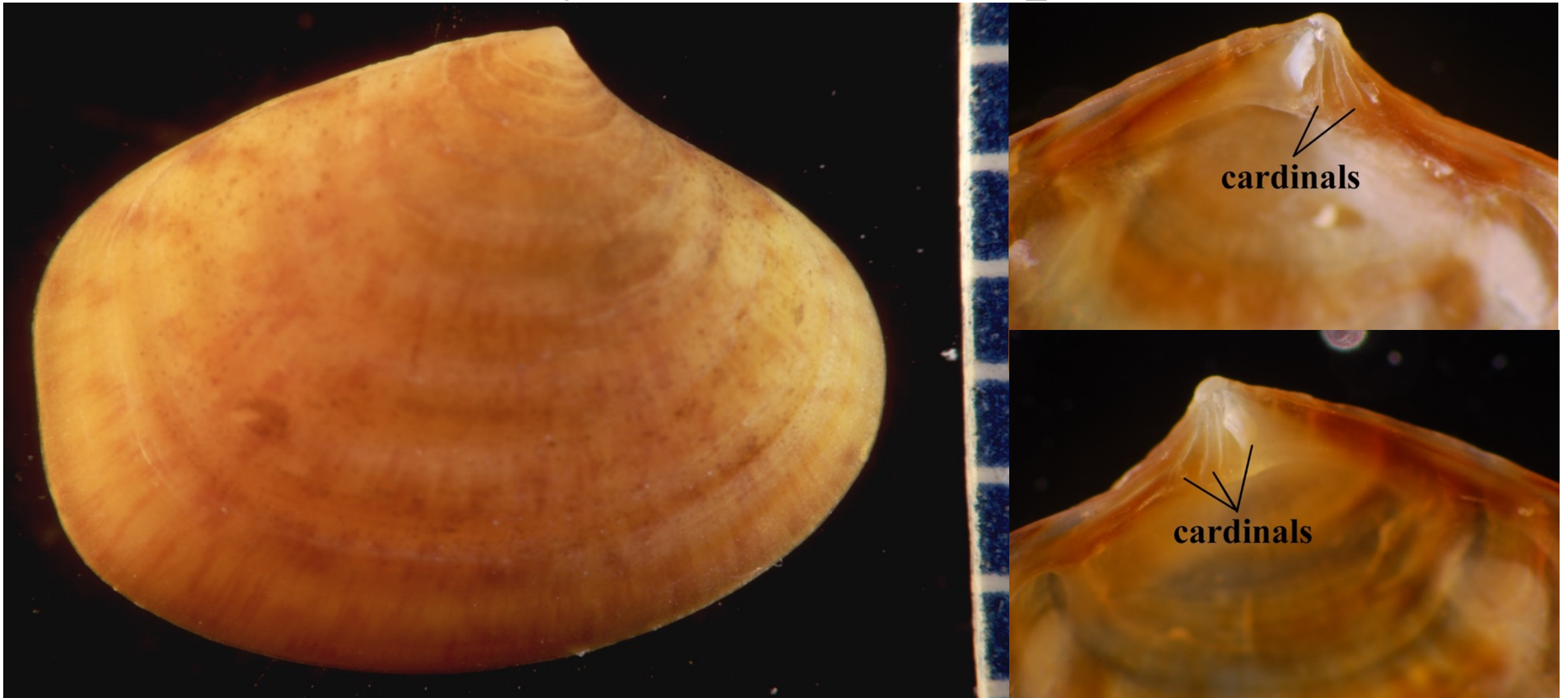
Subclass Heterodonta

Order Carditida

Family Crassatellidae

- 1. Commarginal rounded ribs**
- 2. Posterior end truncate**
- 3. Hinge plate with two cardinals in left valve and three cardinals in right valve; lateral teeth usually present but distant**

Eucrassatella fluctuata (Carpenter 1864)



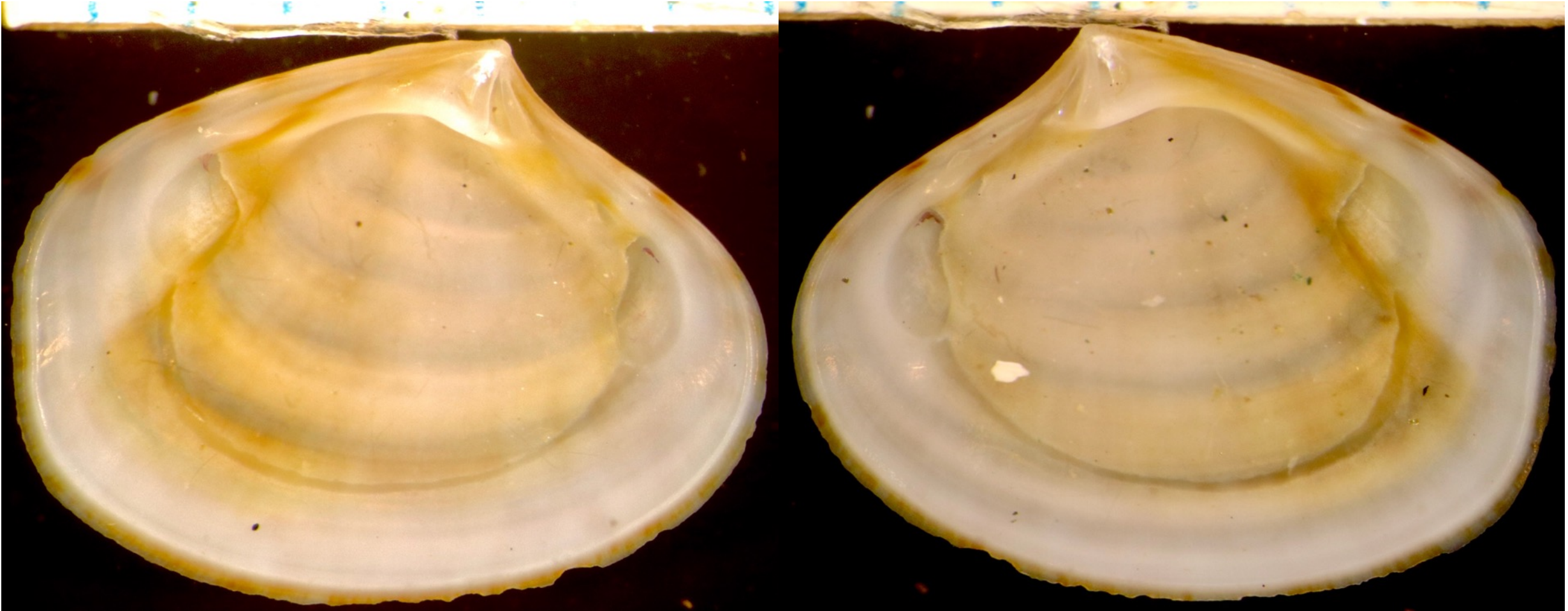
B'98 2081 Santa Catalina Island 50m

left hinge above, right hinge below

Photos courtesy of Kelvin Barwick

T. Phillips for SCAMIT 11APR2022

Eucrassatella fluctuata (Carpenter 1864)



left valve

B'98 2081 Catalina Island 50m

right valve

Family Carditidae

- 1. Rounded to trapezoidal valves, equivalve**
- 2. Sculpture of strong radial ribs**
- 3. Ligament external**
- 4. Two cardinal teeth in each valve**

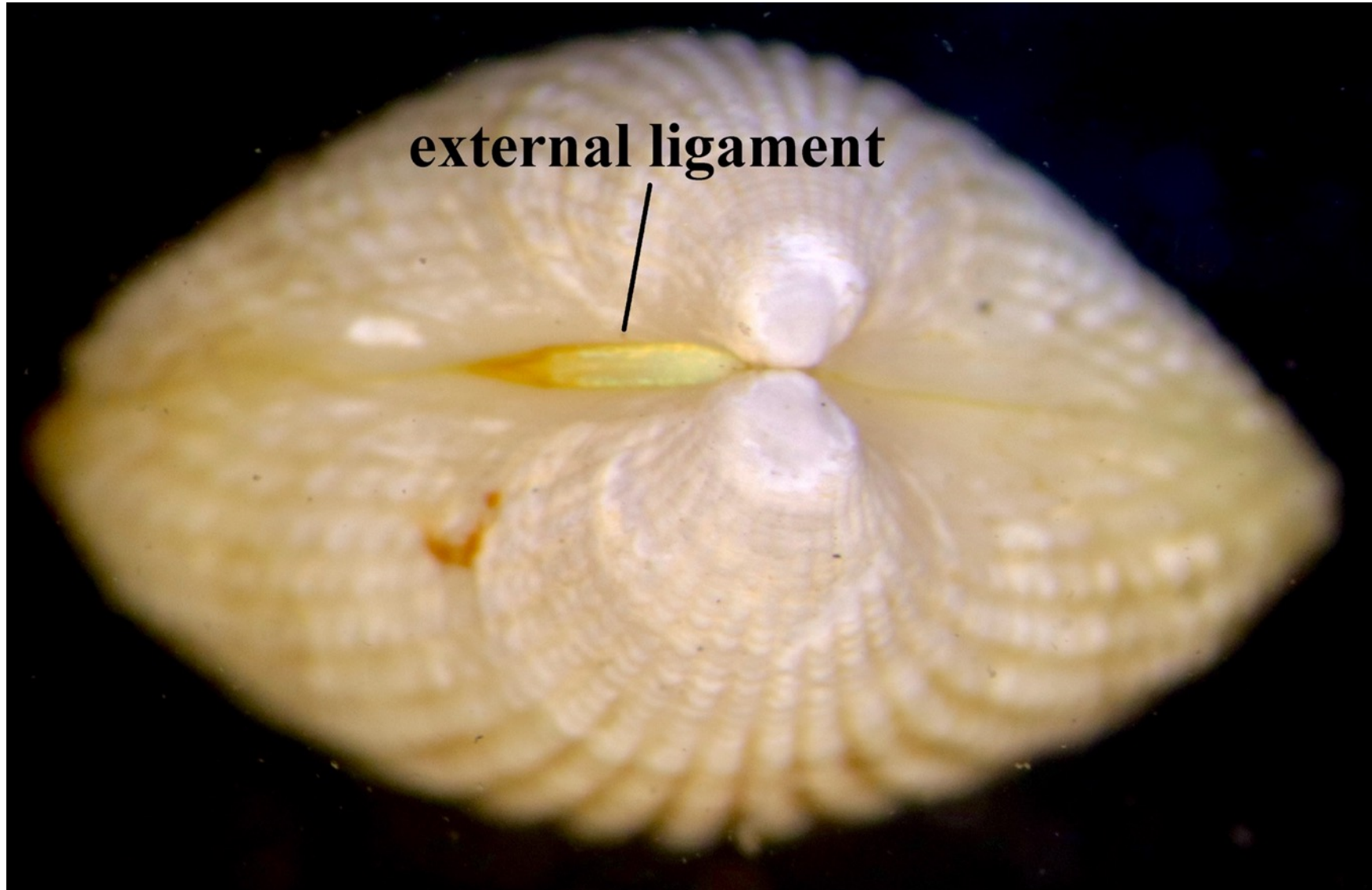
Coanocardia bailyi (J.Q. Burch 1944)



B'13 9357 Northern Channel Islands 75m

T. Phillips for SCAMIT 11APR2022

Coanocardia bailyi (J.Q. Burch 1944)



CSD I6 56m 1996

Coanocardia bailyi (J.Q. Burch 1944)



I7 56m 1996

CSD Voucher M351
I6 26m 1996

I7 56m 1996

Coanocardia bailyi (J.Q. Burch 1944)



CSD Voucher M351 I7 57m 1997

Coanocardita ventricosa Cmplx

originally identified as *Coanocardita ventricosa*



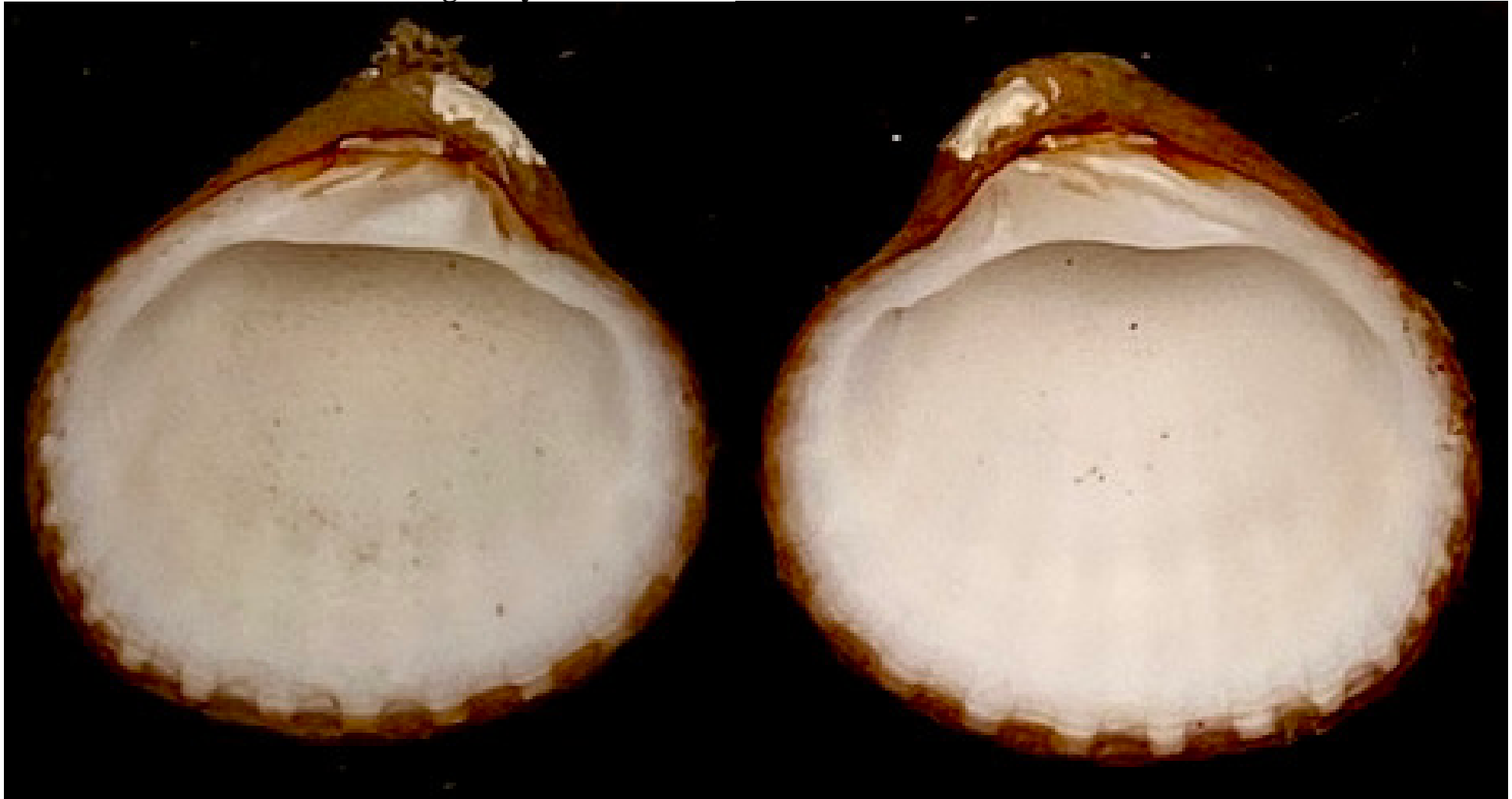
MMS Phase 1 109m 1984

Specimens courtesy of Carol Paquette MBC

T. Phillips for SCAMIT 11APR2022

Coanicardita ventricosa Cmplx

originally identified as *Coanicardita ventricosa*



left valve

MMS Phase 1 109m 1984

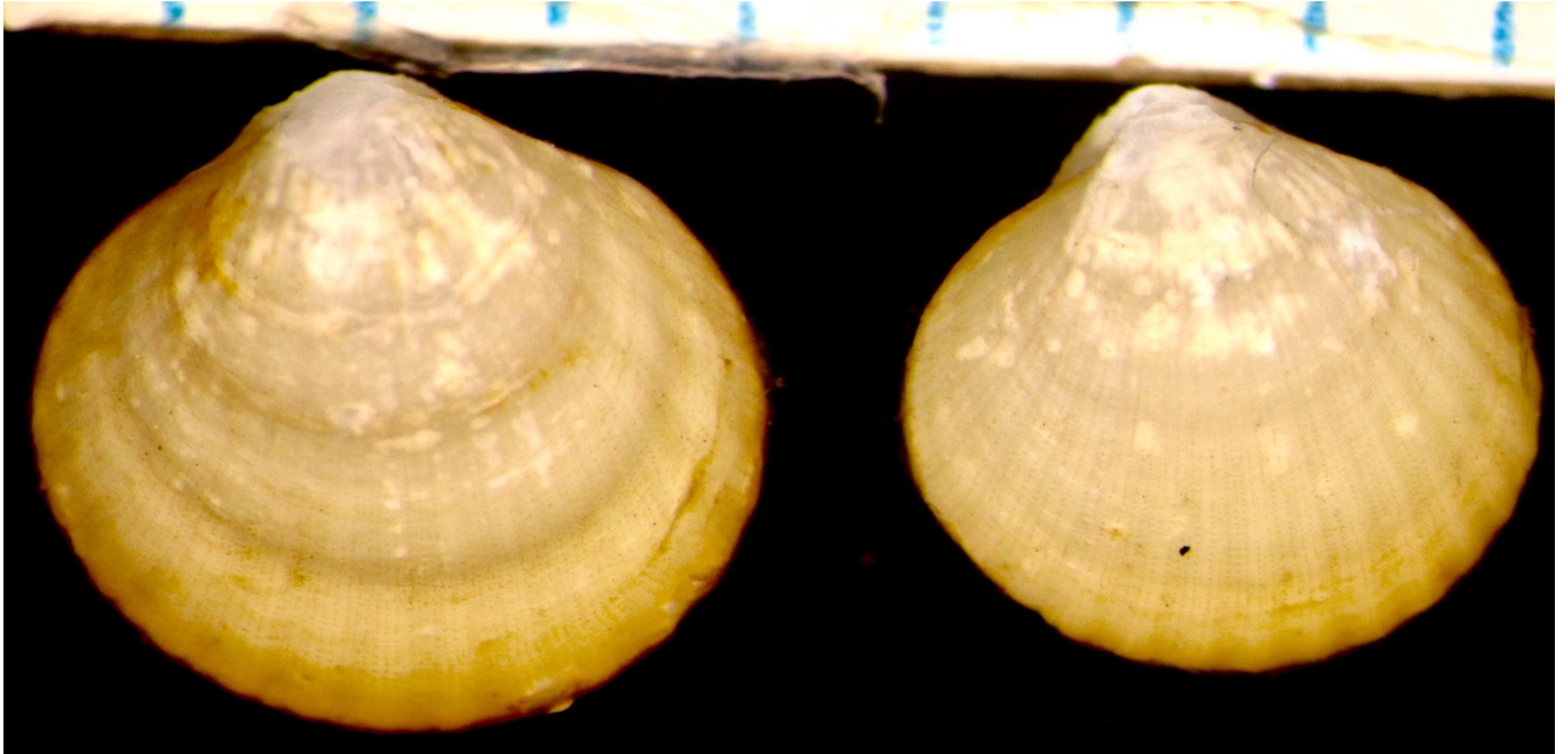
right valve

Specimens courtesy of Carol Paquette MBC

T. Phillips for SCAMIT 11APR2022

Coanocardita ventricosa Cmplx

originally identified as *Coanocardita ventricosa*



MMS Phase 1 109m 1984

Specimens courtesy of Carol Paquette MBC

T. Phillips for SCAMIT 11APR2022

Coanocardita ventricosa Cmplx

originally identified as *Coanocardita ventricosa*



B'18 10038 E Santa Barbara Channel 259m

T. Phillips for SCAMIT 11APR2022

Coanocardita ventricosa Cmplx

originally identified as *Coanocardita ventricosa*



B'18 10038 E Santa Barbara Channel 259m

T. Phillips for SCAMIT 11APR2022

Coanocardita ventricosa Cmplx

originally identified as *Coanocardita ventricosa*

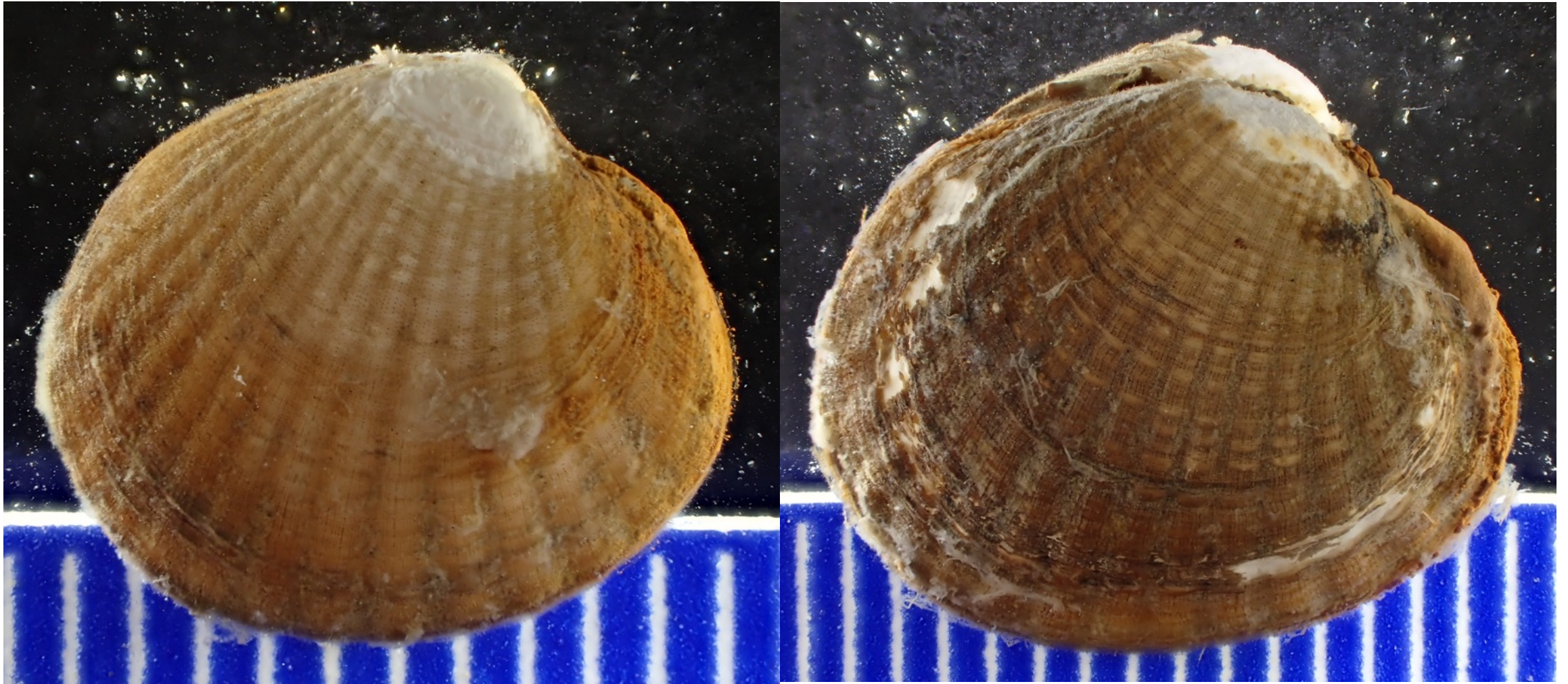


B'18 10244 East Santa Barbara Channel 81m

T. Phillips for SCAMIT 11APR2022

Coanocardita ventricosa Cmplx

originally identified as *Cyclocardia gouldii*



B'18 10340 Hueneme-Dume 274m

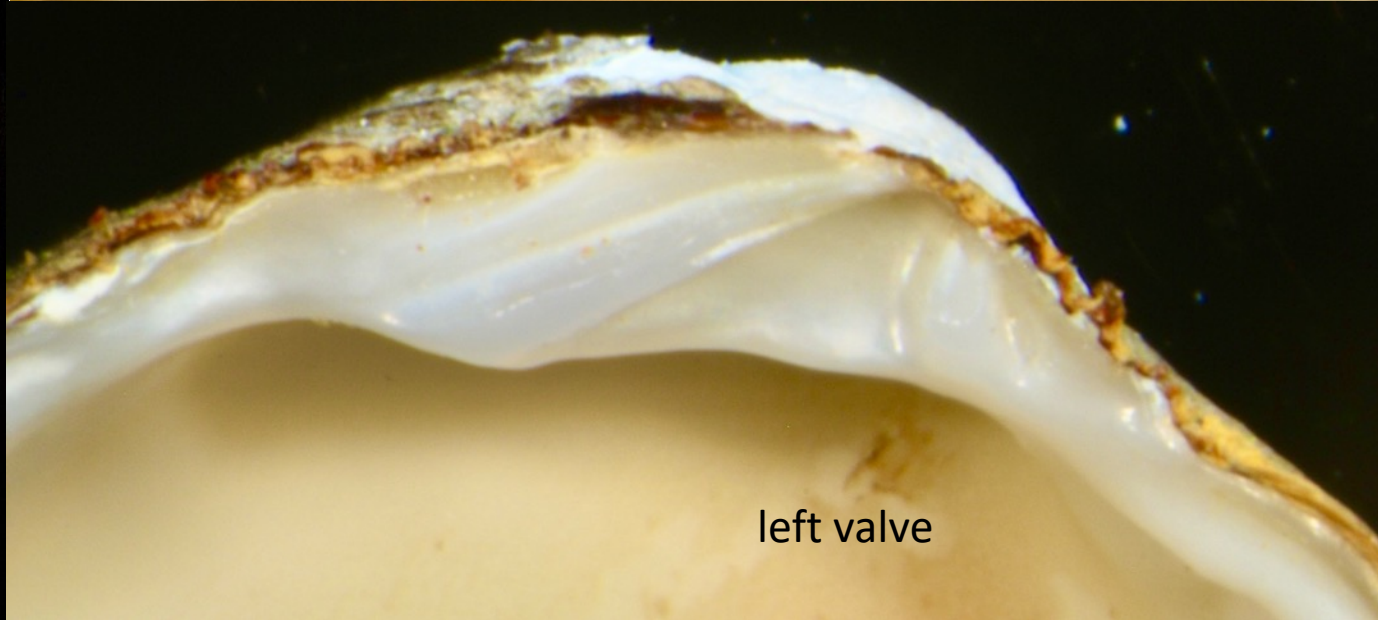
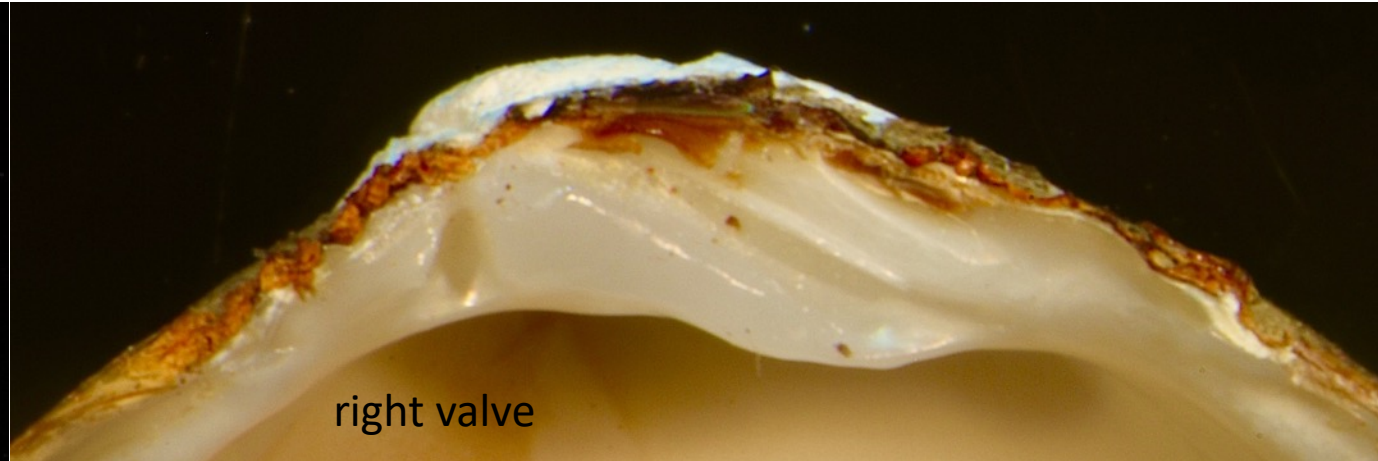
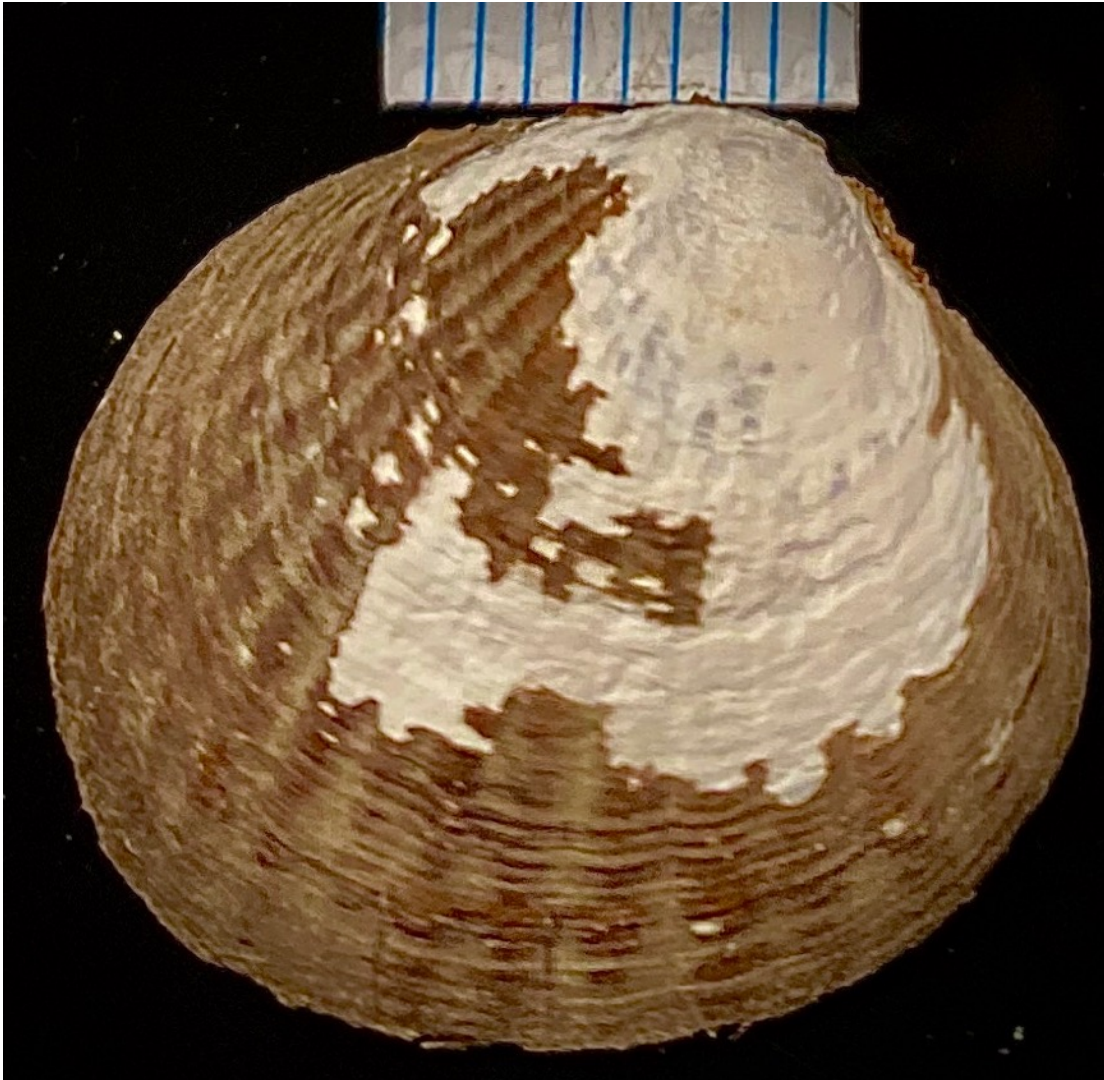
Coanocardita ventricosa Cmplx

originally identified as *Cyclocardia gouldii*



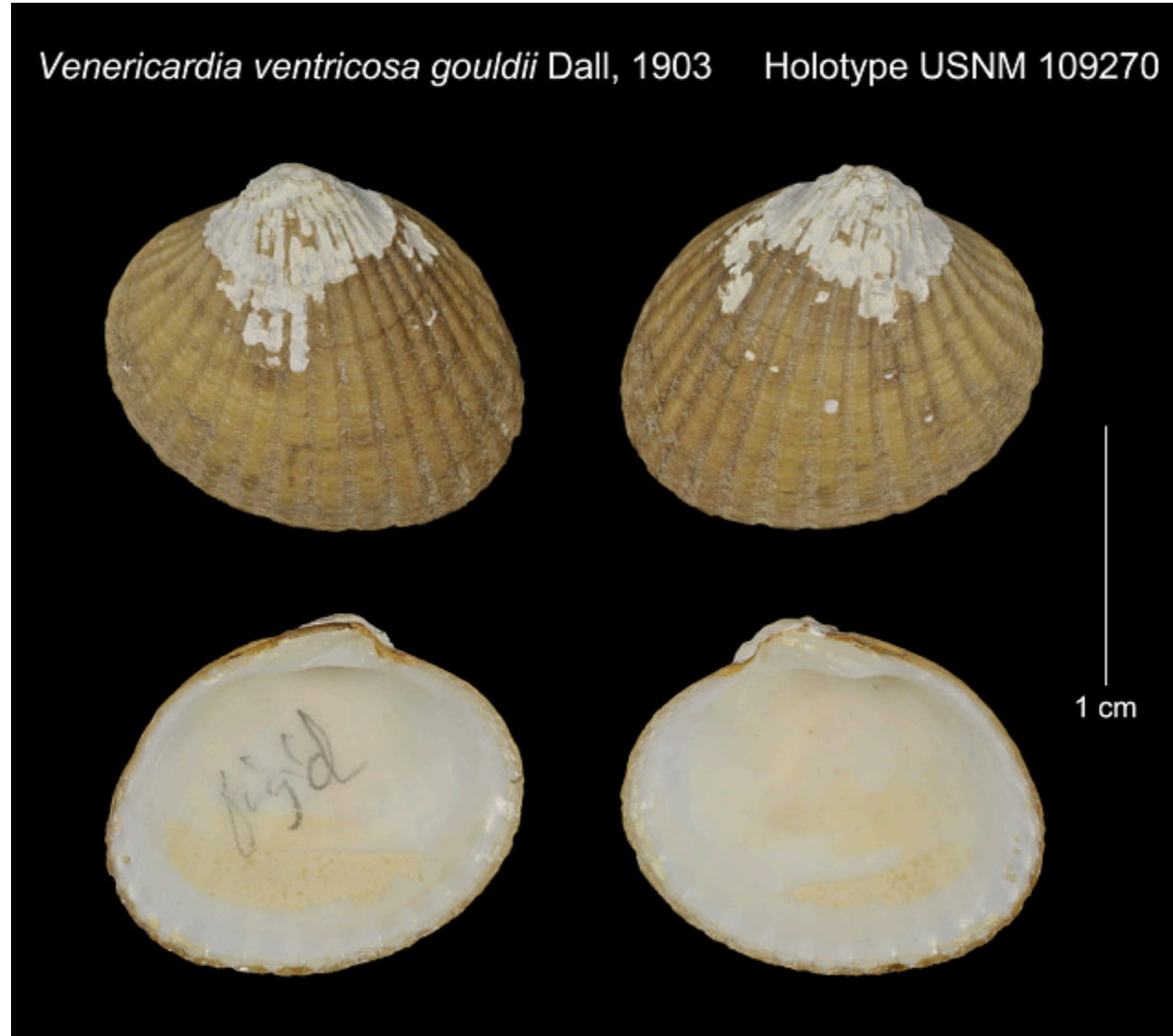
Coanocardita ventricosa Cmplx

originally identified as *Cyclocardia gouldii*



B'18 10335 East Santa Barbara Channel 363m

Coanocardita ventricosa Cmplx



Holotype Photo courtesy of Dr. Paul Scott

T. Phillips for SCAMIT 11APR2022

Coanocardita ventricosa Cmplx

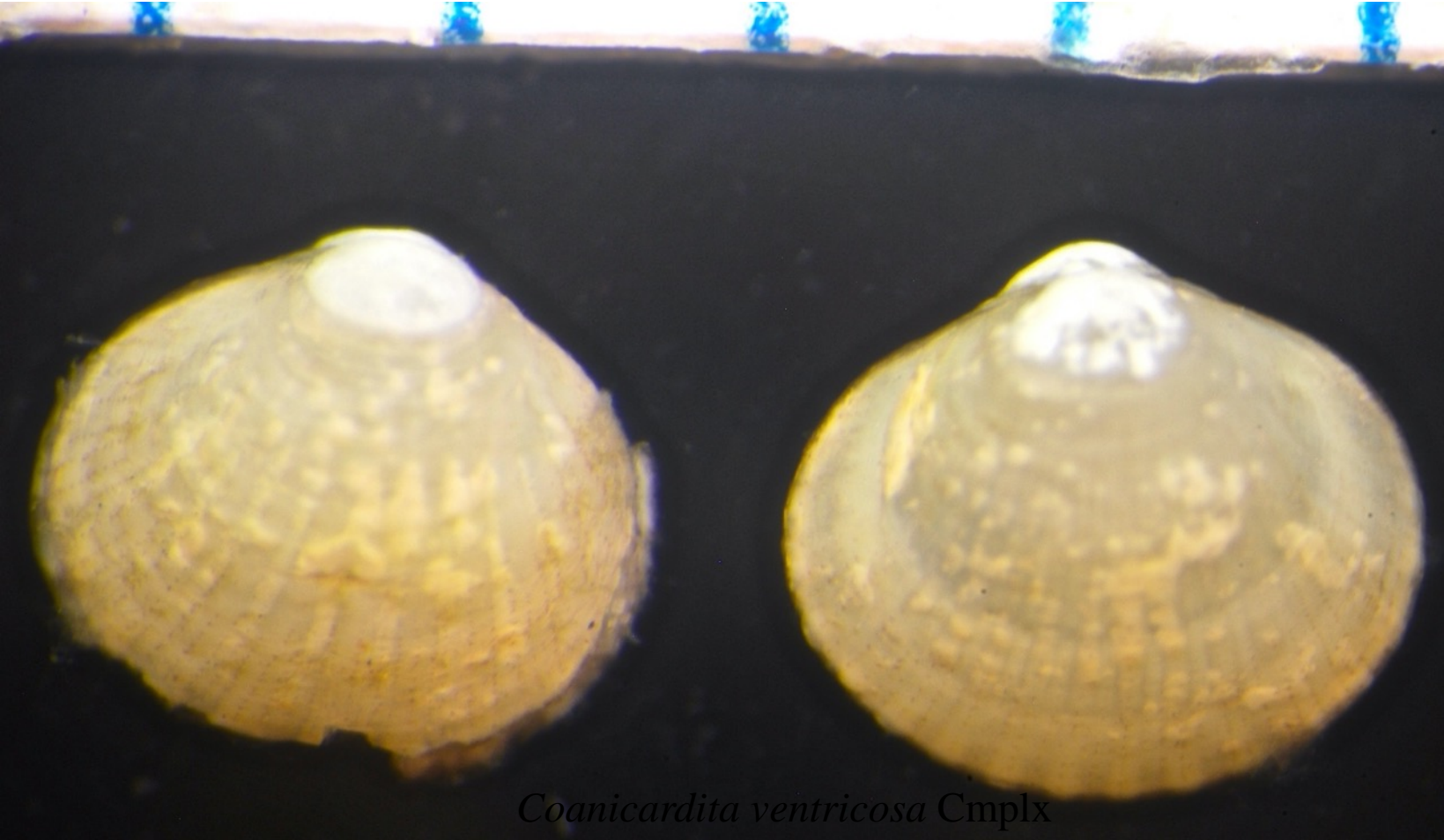
originally identified as *Cyclocardia gouldii*



B'18 10335 E Santa Barbara Channel 363m

T. Phillips for SCAMIT 11APR2022

Venericardiinae juveniles



Coanicardita ventricosa Cmplx

Coanicardita ventricosa Cmplx

original ID *C. ventricosa*

B'18 E Santa Barbara Channel 259m



original ID *C. gouldii*

B'18 E Santa Barbara Channel 363m



C. bailyi

CSD I7 57m 1997

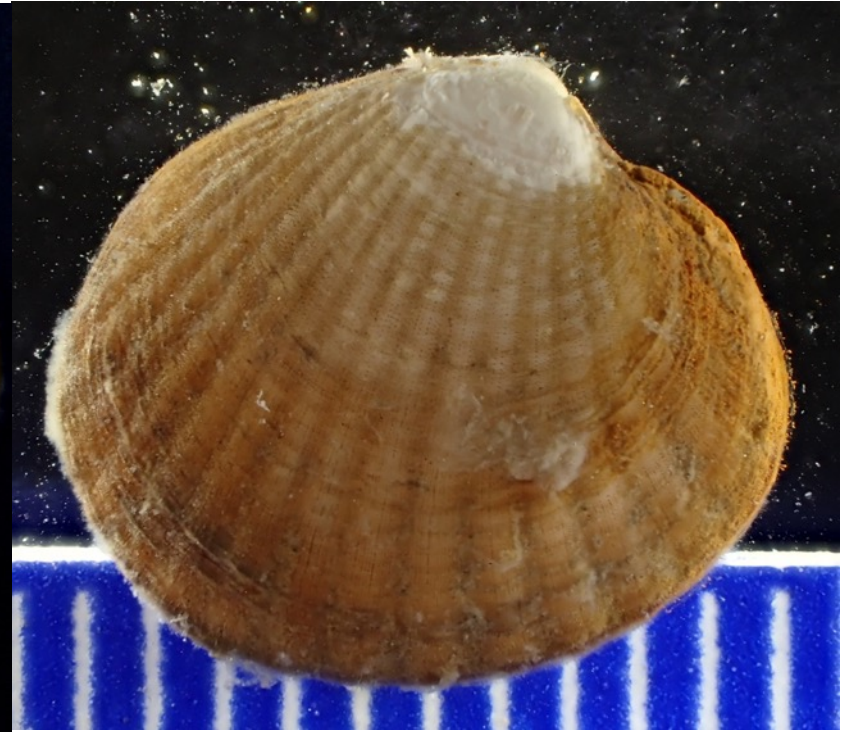
Scalaricarditinae



Coanicardia bailyi
B'13 9357
Northern Channel Islands 75m



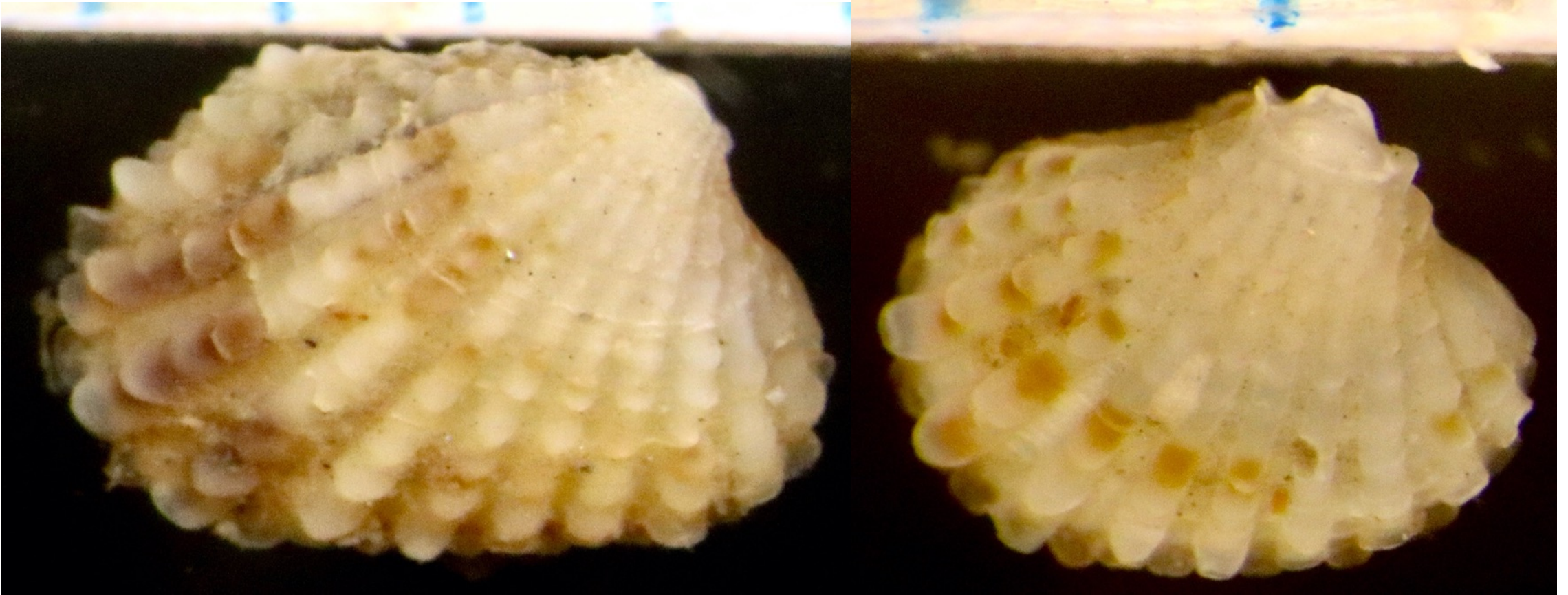
original ID
Coanicardita ventricosa
B'18 10038
Santa Barbara Channel 259m



Coanicardita ventricosa Cmplx

original ID
Coanicardita ventricosa
B'18 10340
Hueneme-Dume 274m

Glans carpenteri (Lamy 1922)



ISS Carpenteria 4328QX13 8/16/07

T. Phillips for SCAMIT 11APR2022

Glans carpenteri (Lamy 1922)

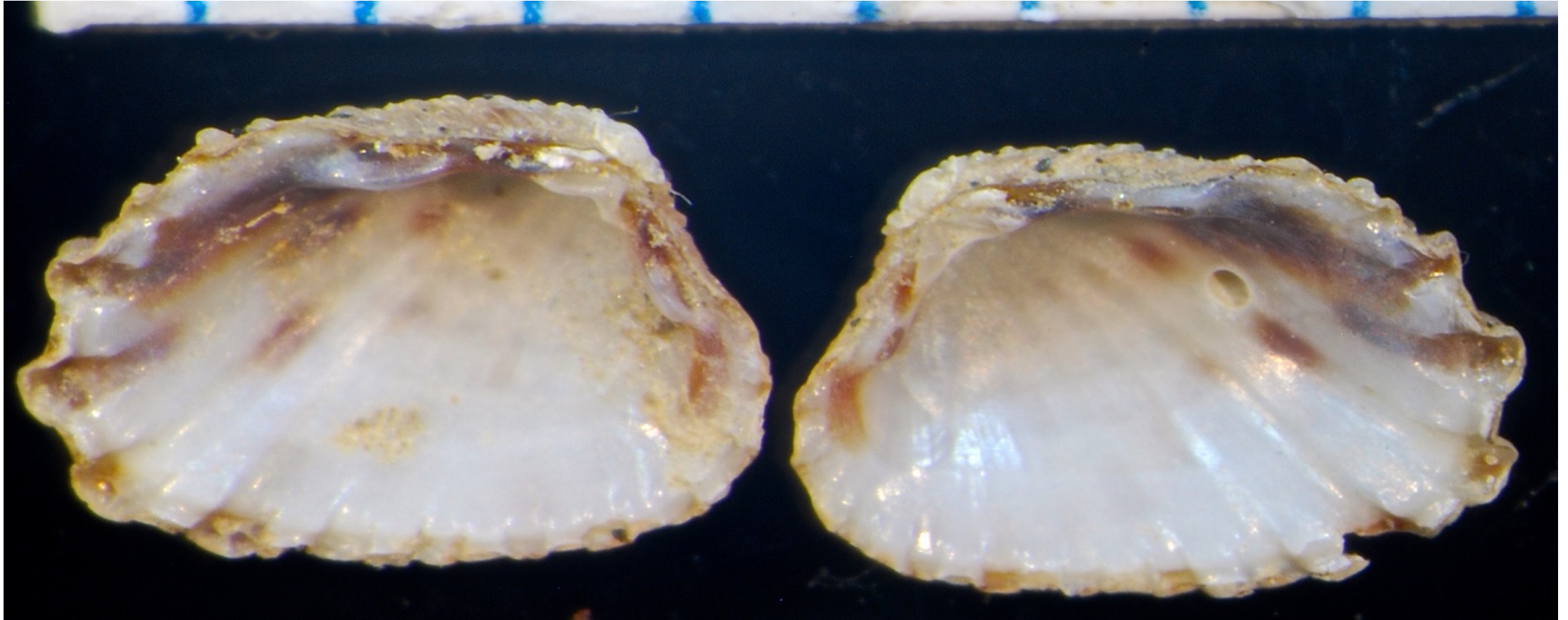


Bolsa Chica 7m 1990

Specimens courtesy of Carol Paquette MBC

T. Phillips for SCAMIT 11APR2022

Glans carpenteri (Lamy 1922)



Bolsa Chica 7m 1990

Milneria kelseyi Dall 1916/*Milneria minima* (Dall 1871)



Dorsal aspect below

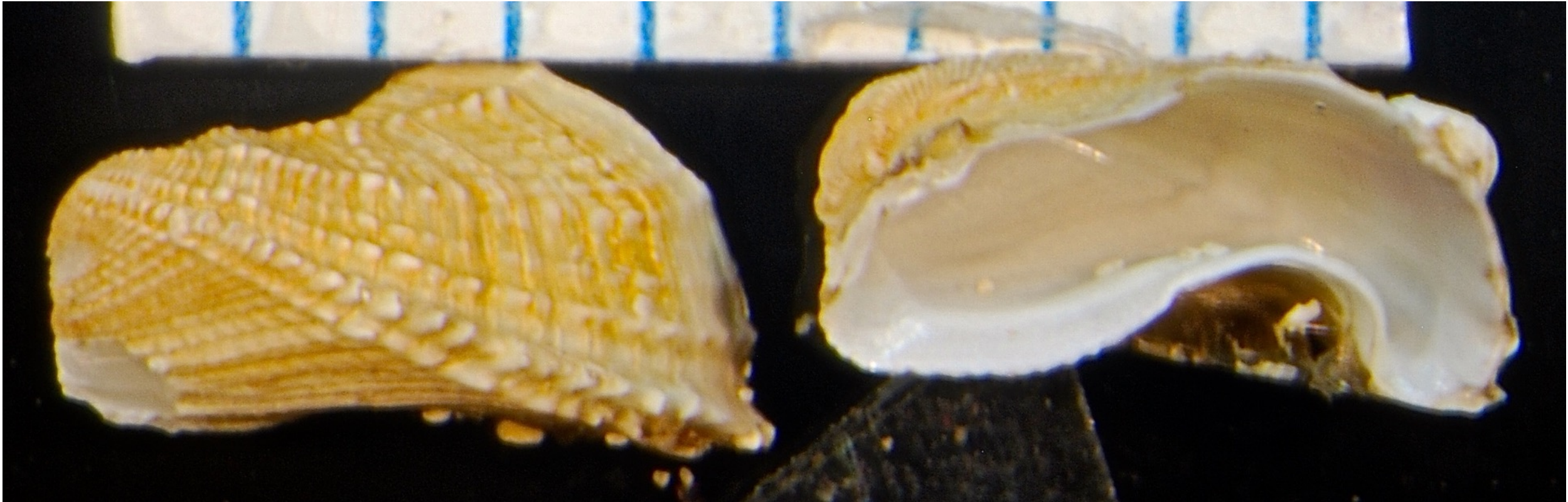
Portuguese Bend Intertidal 1965



Specimens courtesy of Carol
Paquette MBC

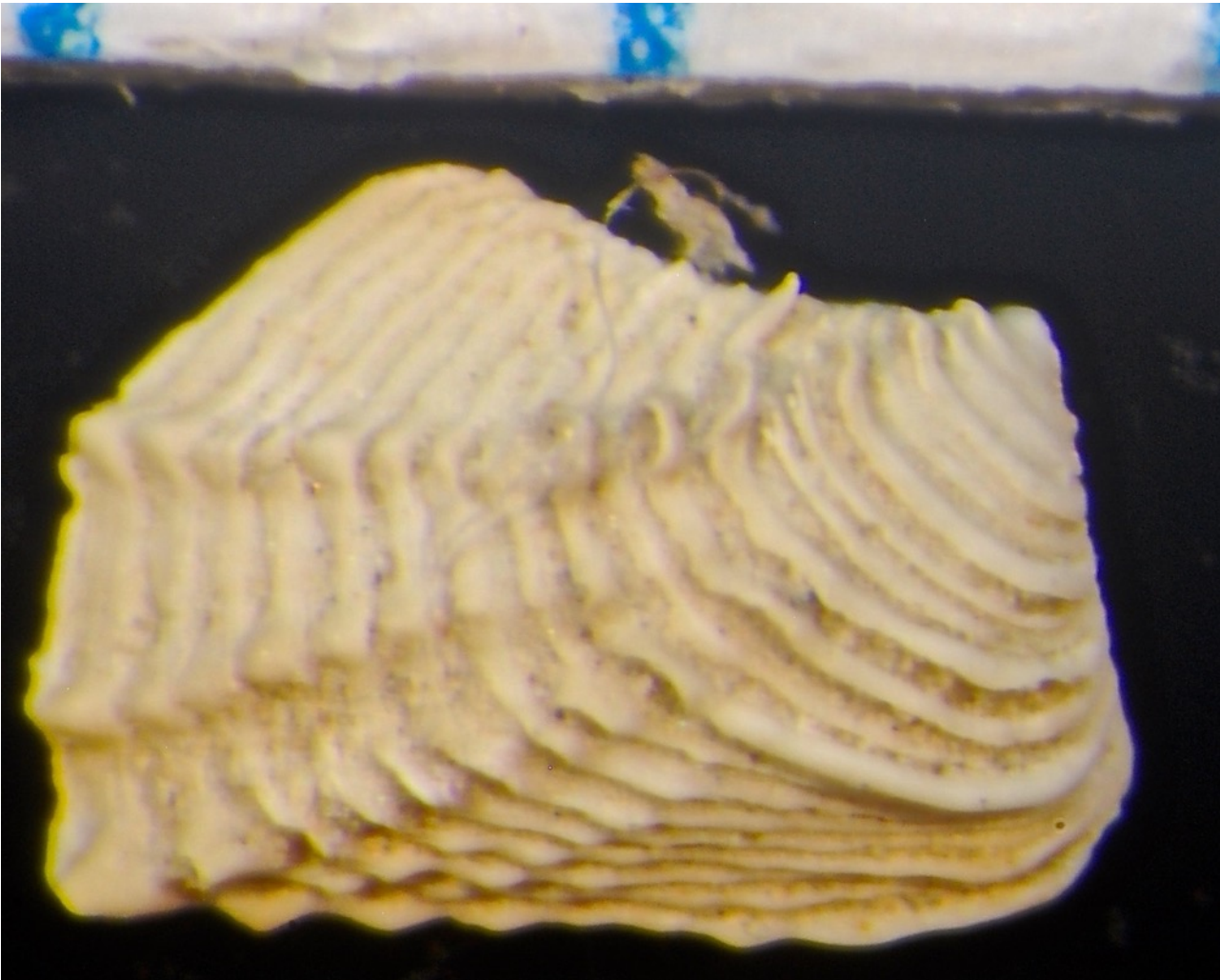
T. Phillips for SCAMIT 11APR2022

Milneria kelseyi Dall 1916

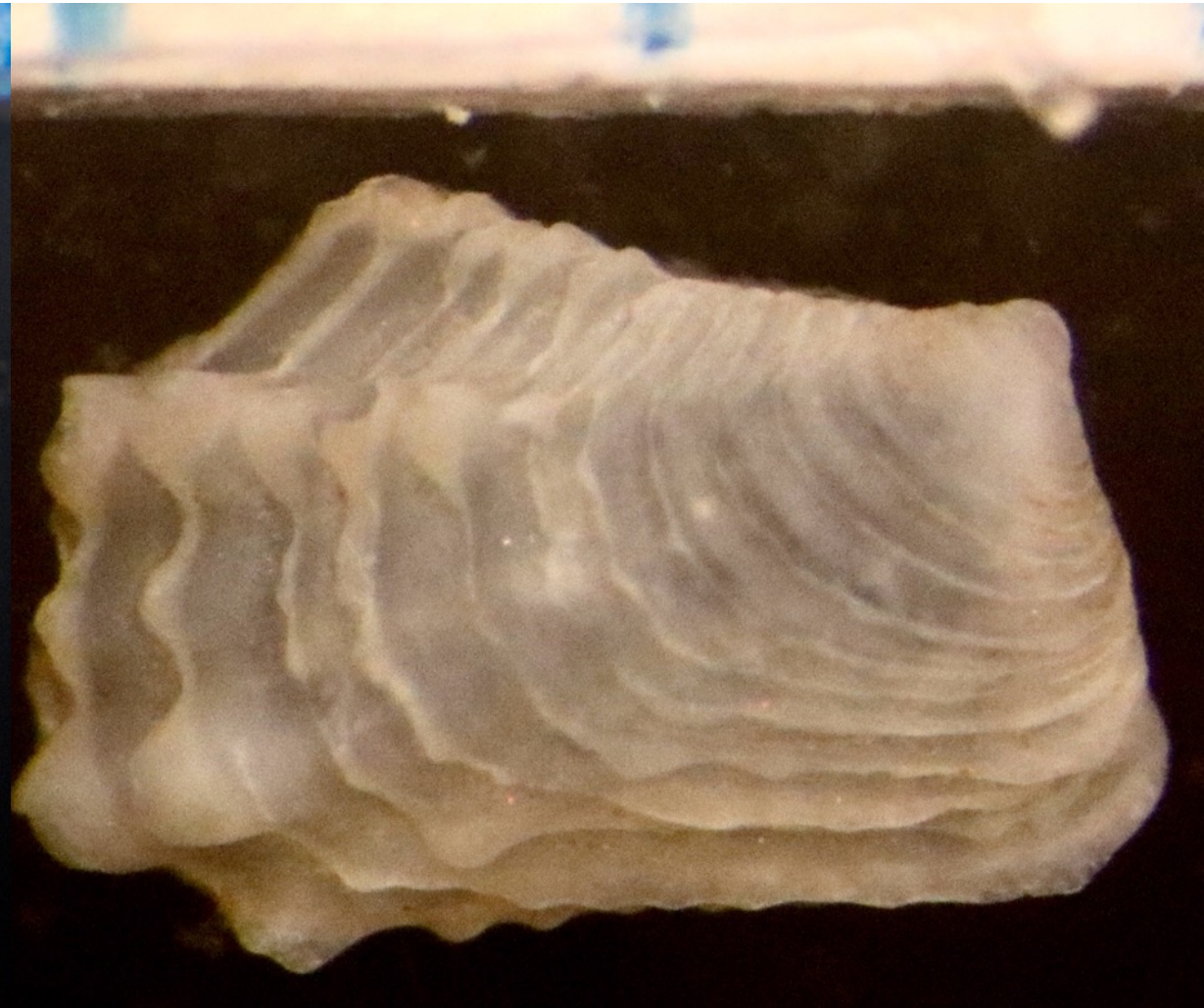


Bolsa Chica 7m 1990

***Milneria kelseyi* Dall 1916/*Milneria minima* (Dall 1871)**



B98 2519 Santa Cruz Island 66m



ISS Pin Rock 0585QX13 2/10/2005

Family Lucinidae

- 1. Sculpture strongly commarginal or cancellate**
- 2. Ligament external**
- 3. Hinge with two cardinal teeth in each valve; lateral teeth strong to weak, absent in some**

Epilucina californica (Conrad 1837)



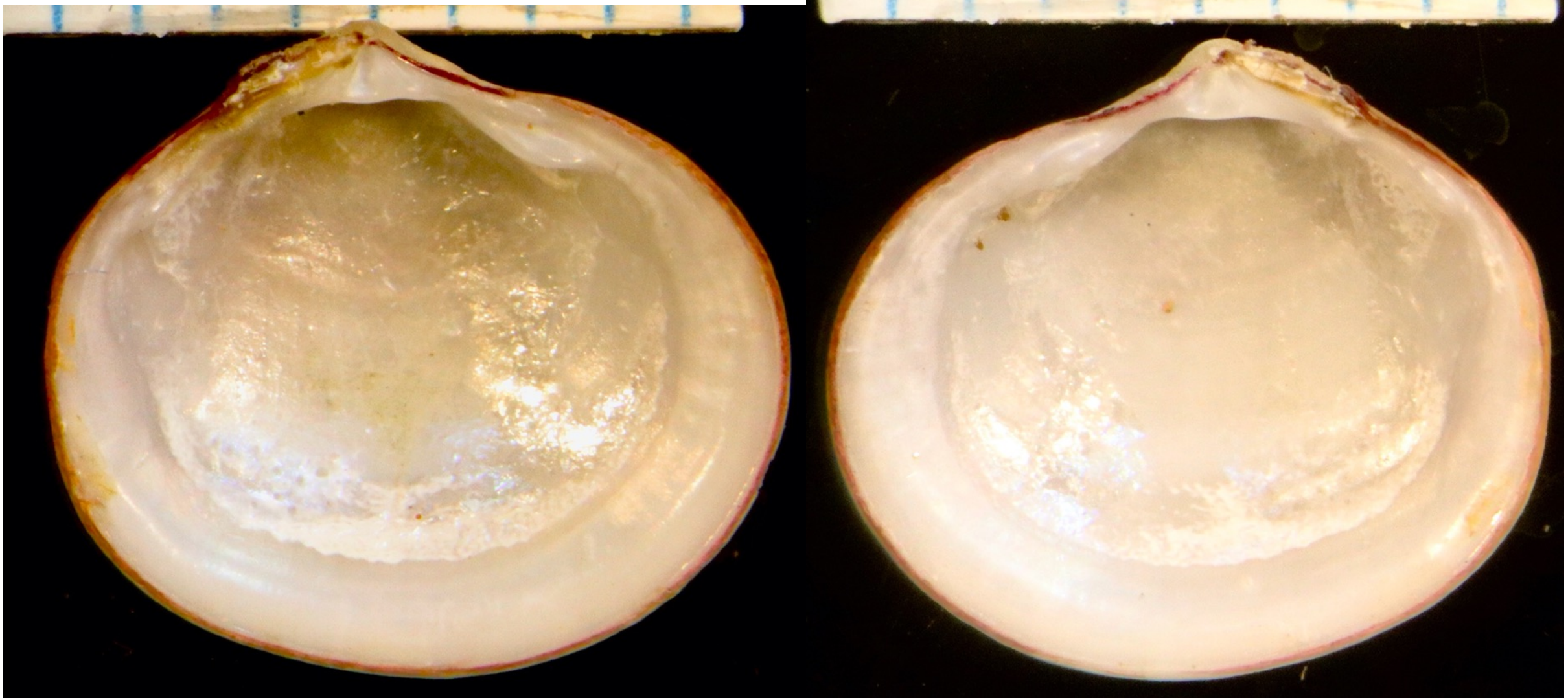
left valve

ISS Avalon 6257QX13 5/6/2011

T. Phillips for SCAMIT 11APR2022

right valve

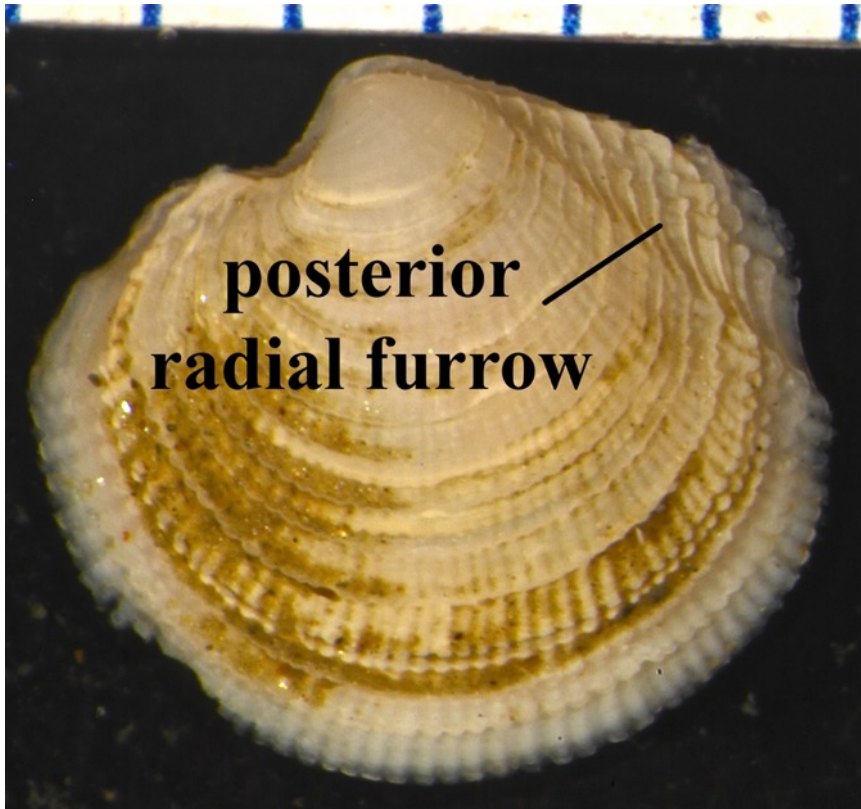
Epilucina californica (Conrad 1837)



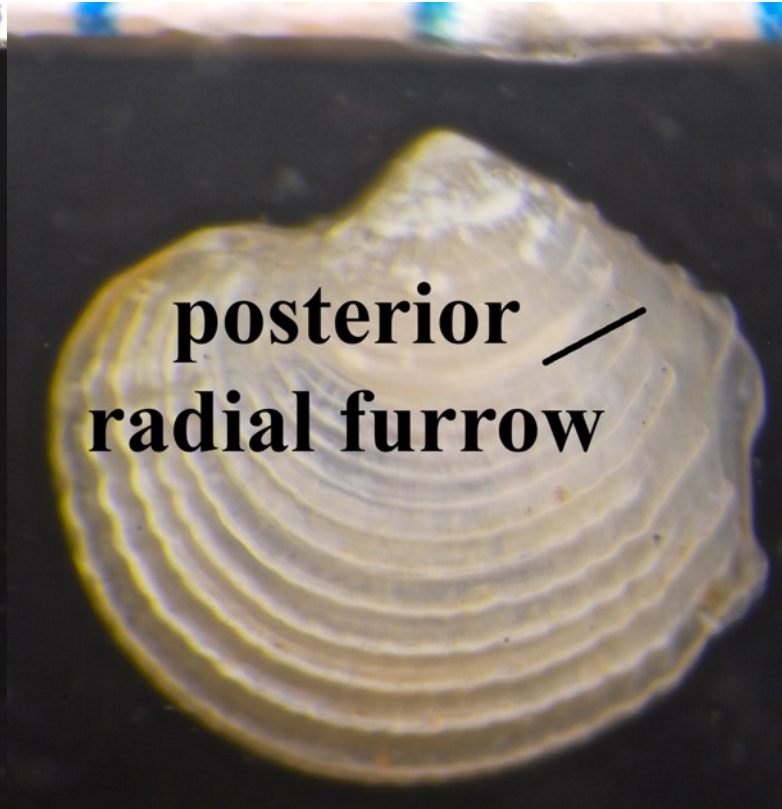
ISS Avalon 6257QX13 5/6/2011

left valve above T. Phillips for SCAMIT 11APR2022 right valve below

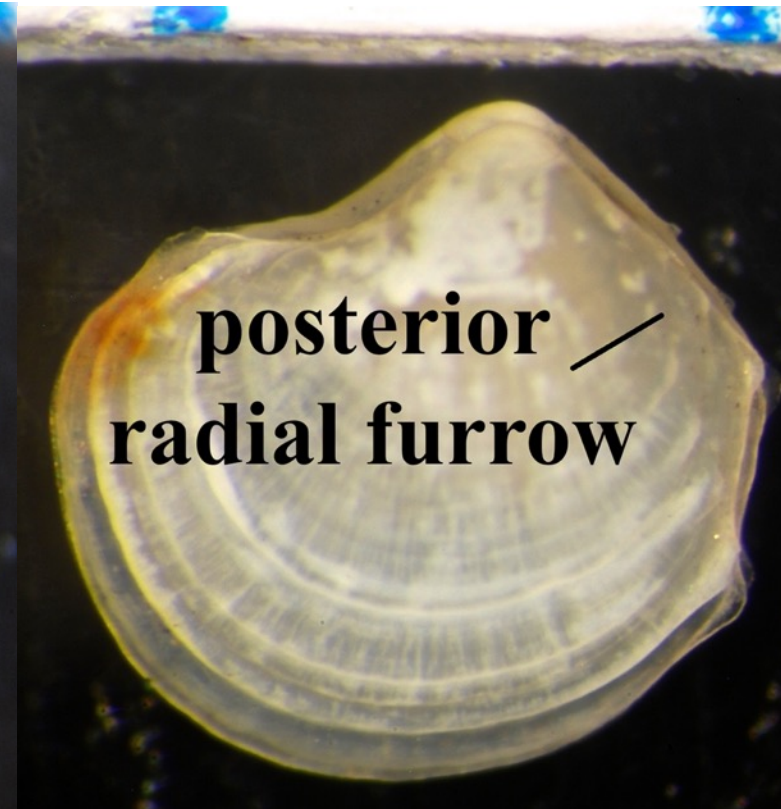
Lucinisca nuttalli (Conrad 1837)



B'13 8085 San Diego Bay 15 m



Monticeto 10m 2019



Sylmar 10m 2015

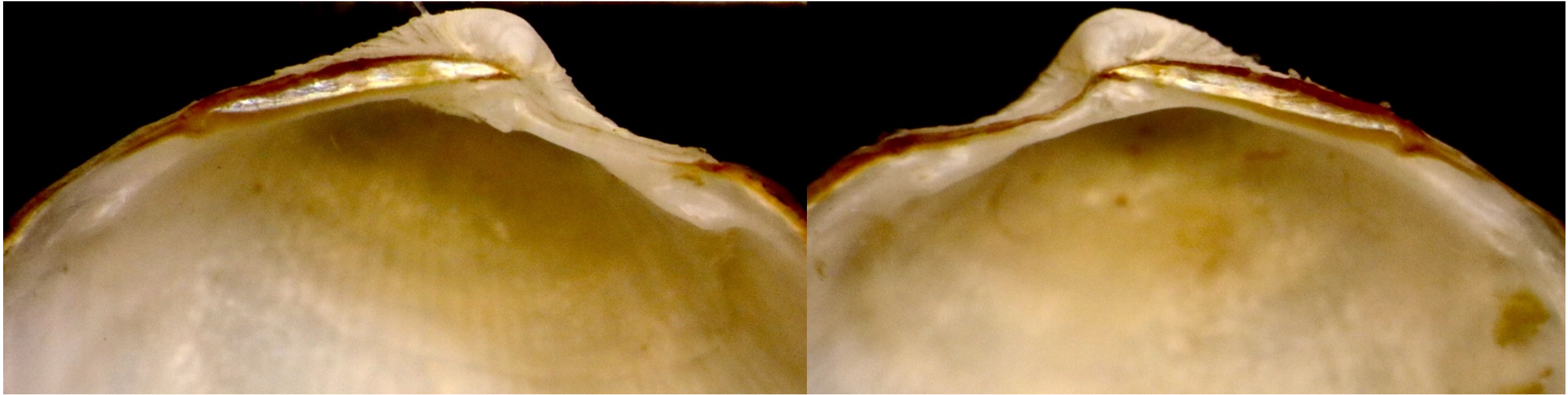
Parvilucina tenuisculpta (Carpenter 1864)



ISS Port Hueneme 3056QX13 7/26/06

T. Phillips for SCAMIT 11APR2022

Parvilucina tenuisculpta (Carpenter 1864)



left hinge

ISS Port Hueneme 3056QX13 7/26/06

right hinge

Parvilucina tenuisculpta (Carpenter 1864)



Avalon 006 30m 2020

T. Phillips for SCAMIT 11APR2022

Parvilucina tenuisculpta (Carpenter 1864)



B'18 10206 Campus Point 29m

Luciniscia nuttalli/*Parvilucina tenuisculpta*



San Diego Bay 8085 15m 2013

T. Phillips for SCAMIT 11APR2022

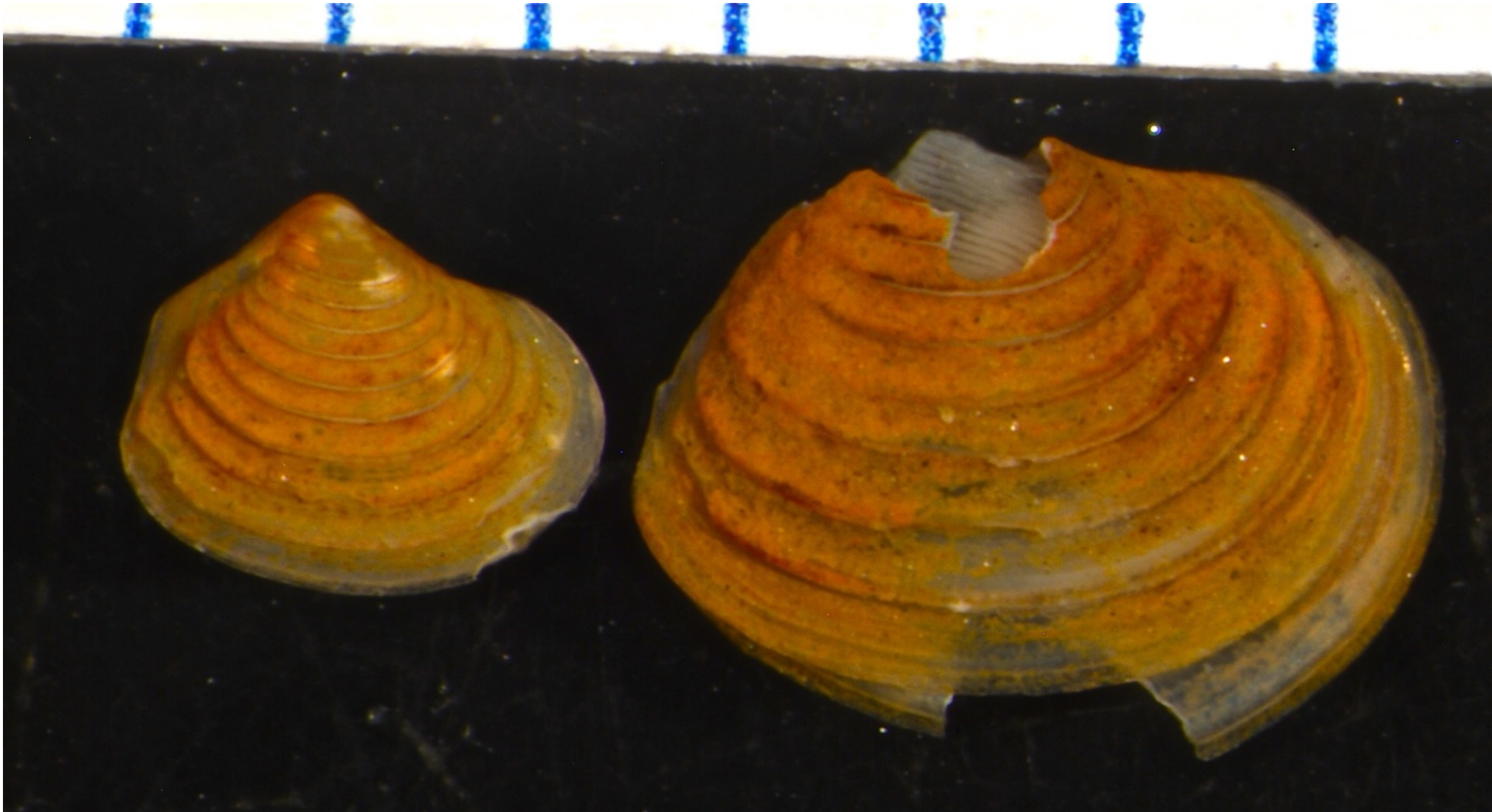
Parvilucina tenuisculpta/Lucinisca nuttalli
juvenile



Sylmar 10m 2014

T. Phillips for SCAMIT 11APR2022

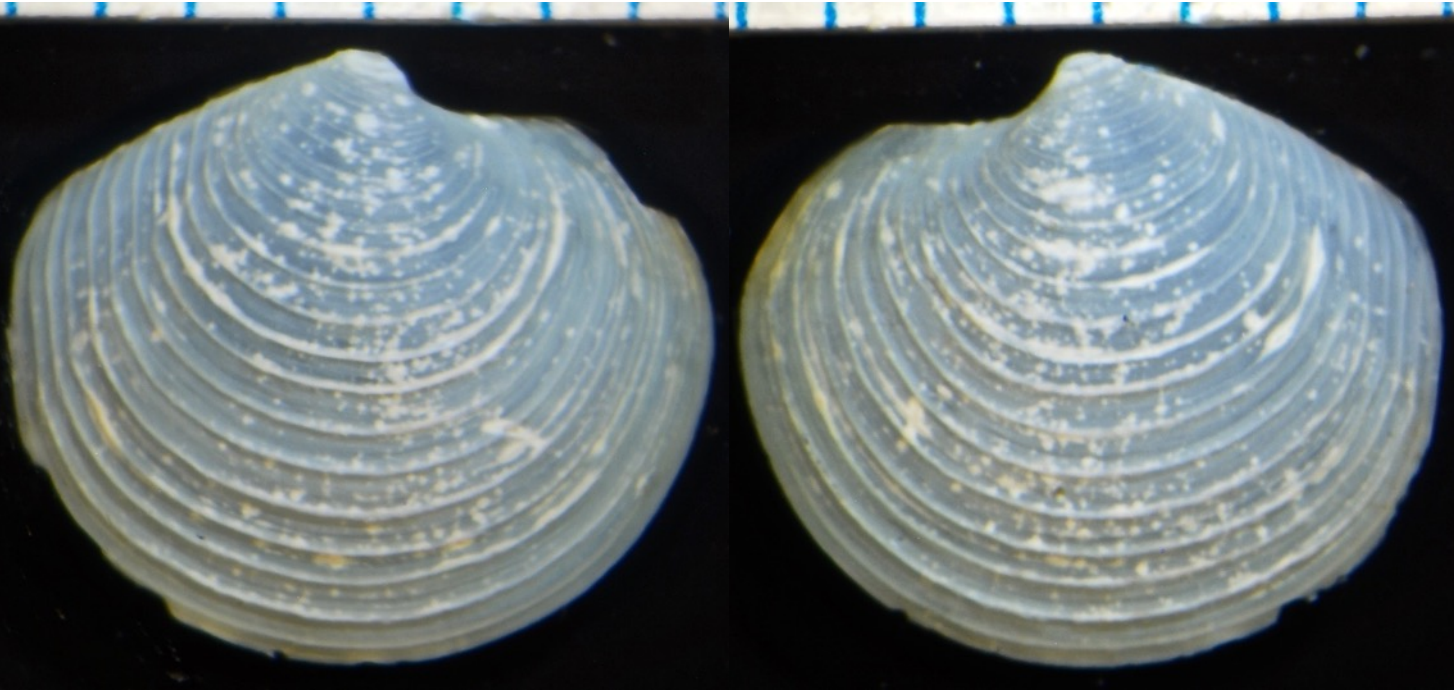
Lucinoma aequizonatum (Stearns 1890)



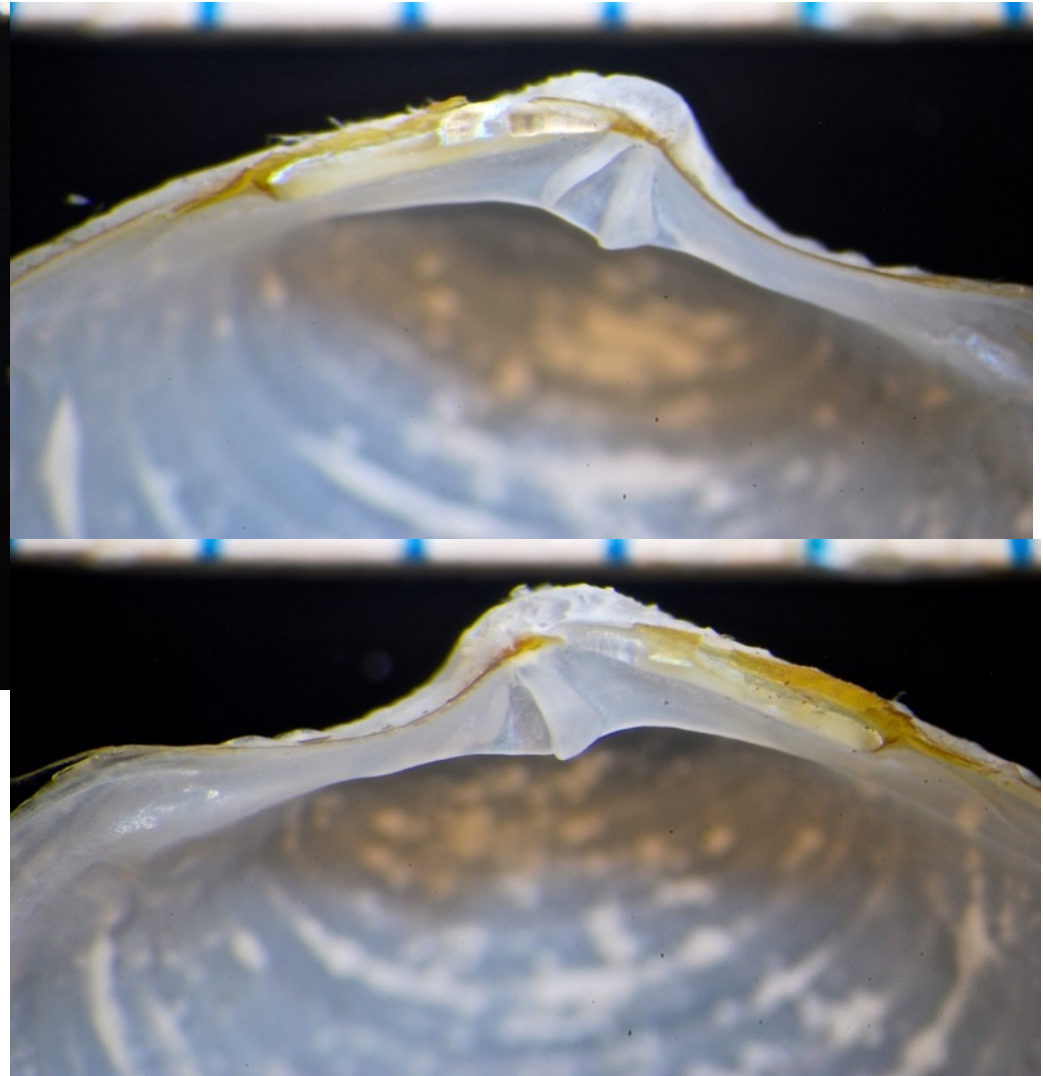
B' 13 9290 Point Dume Canyon 719m

T. Phillips for SCAMIT 11APR2022

Lucinoma annulatum (Reeve 1850)



B'94 1028 Santa Monica Bay 126m
left valve right valve

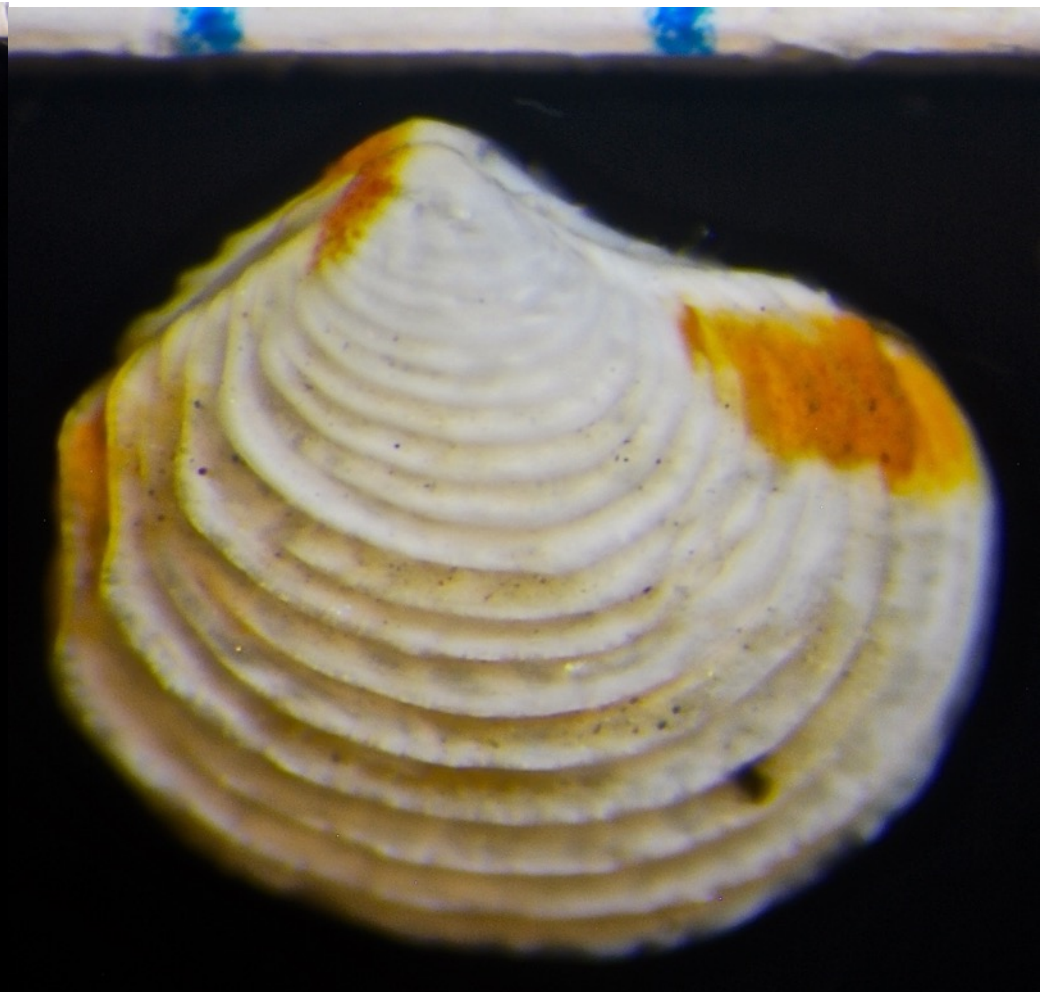


Left hinge (upper right)
Right hinge (lower right)

Lucinoma annulatum (Reeve 1850)



B'13 9365 Northern Channel Islands 124m

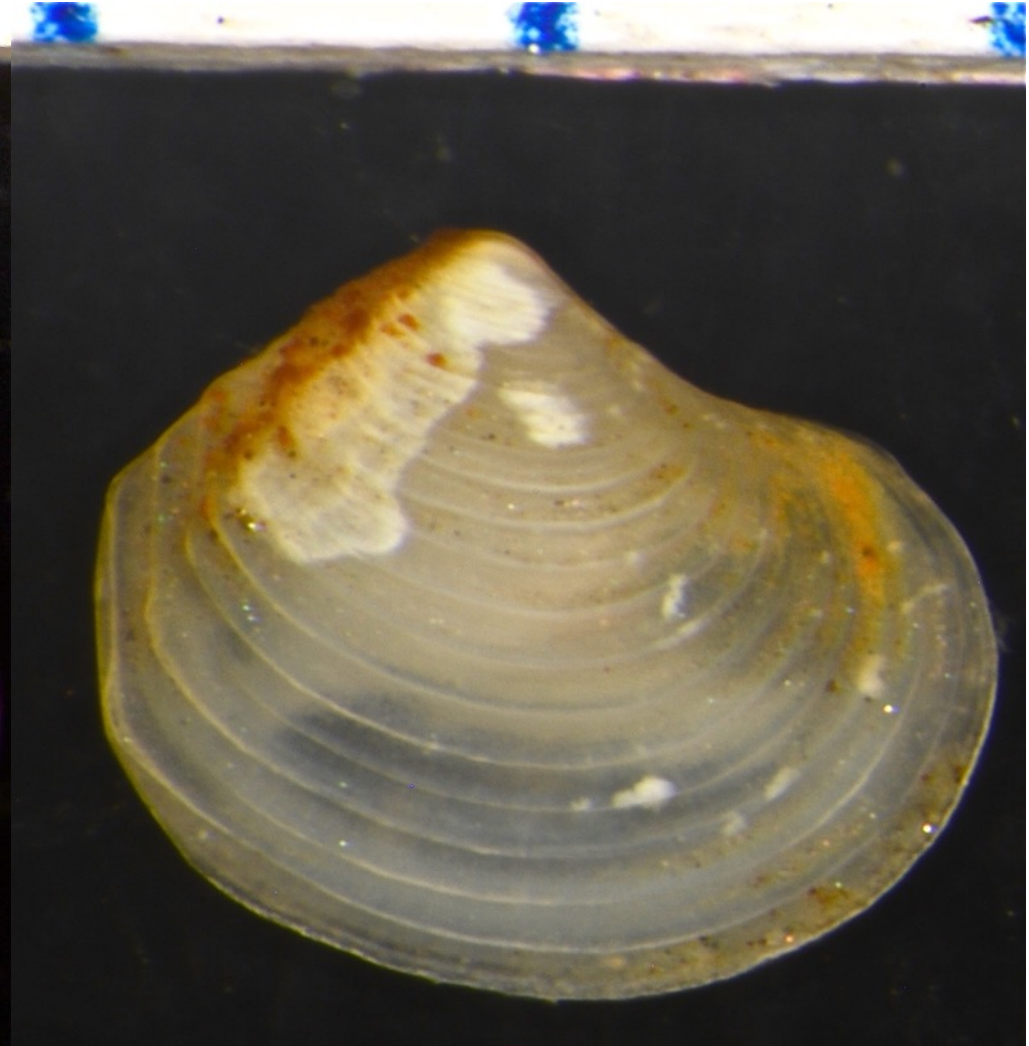


Santa Monica Bay E10 149m 2010

Lucinoma juveniles



Lucinoma aequizonatum juvenile
B'13 9290 Point Dume Canyon 719m

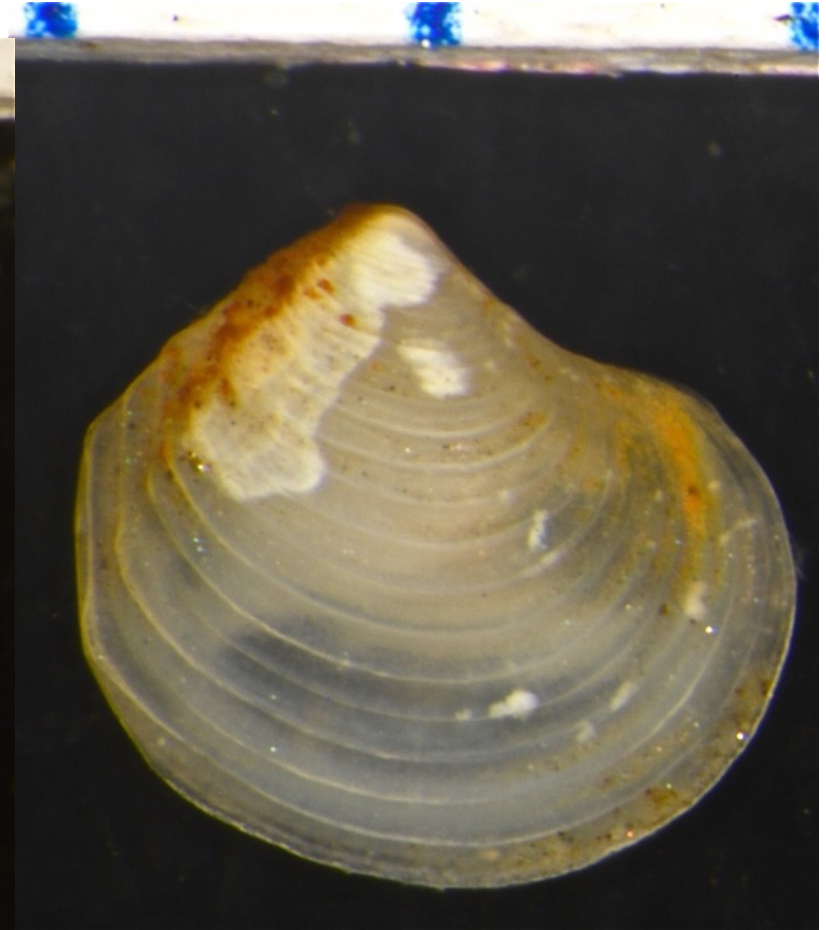


Lucinoma annulatum juvenile
B'13 9316 Santa Monica Bay 60 m

Parvilucina/Lucinisca/Lucinoma (juveniles)



B'13 9304 Northern Channel Islands 21 m

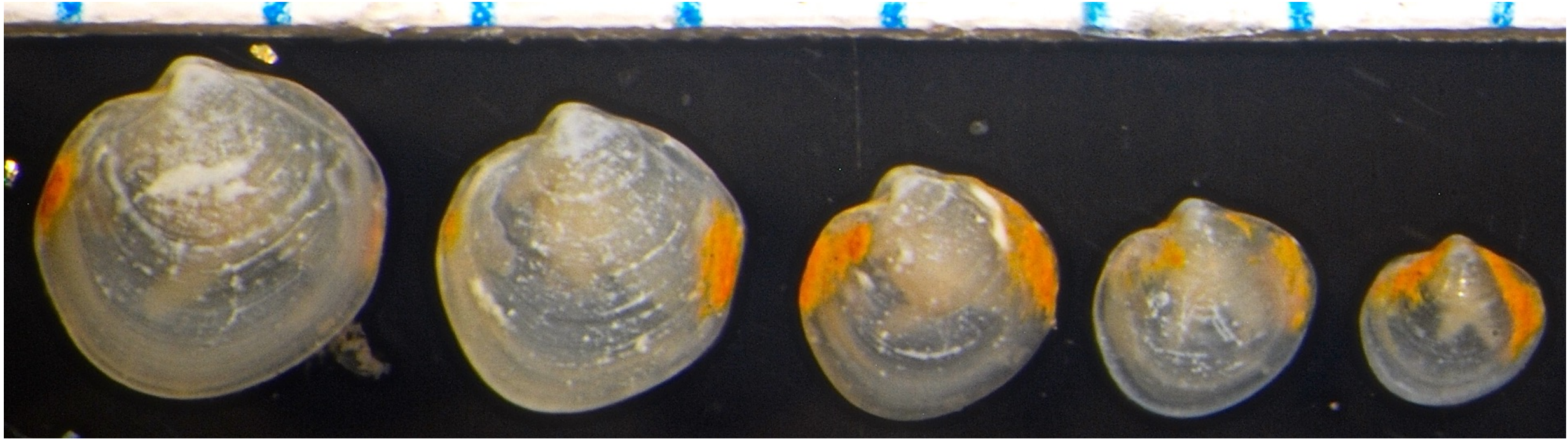


B'13 9316 Santa Monica Bay 60 m

Family Thyasiridae

1. Hinge edentulous or only with low tubercles
2. Ligament external, deeply sunken into groove
3. Sculpture of commarginal lirae
4. Some with radial sulci or folds setting off posterior slope

Adontorhina cyclia Berry 1947

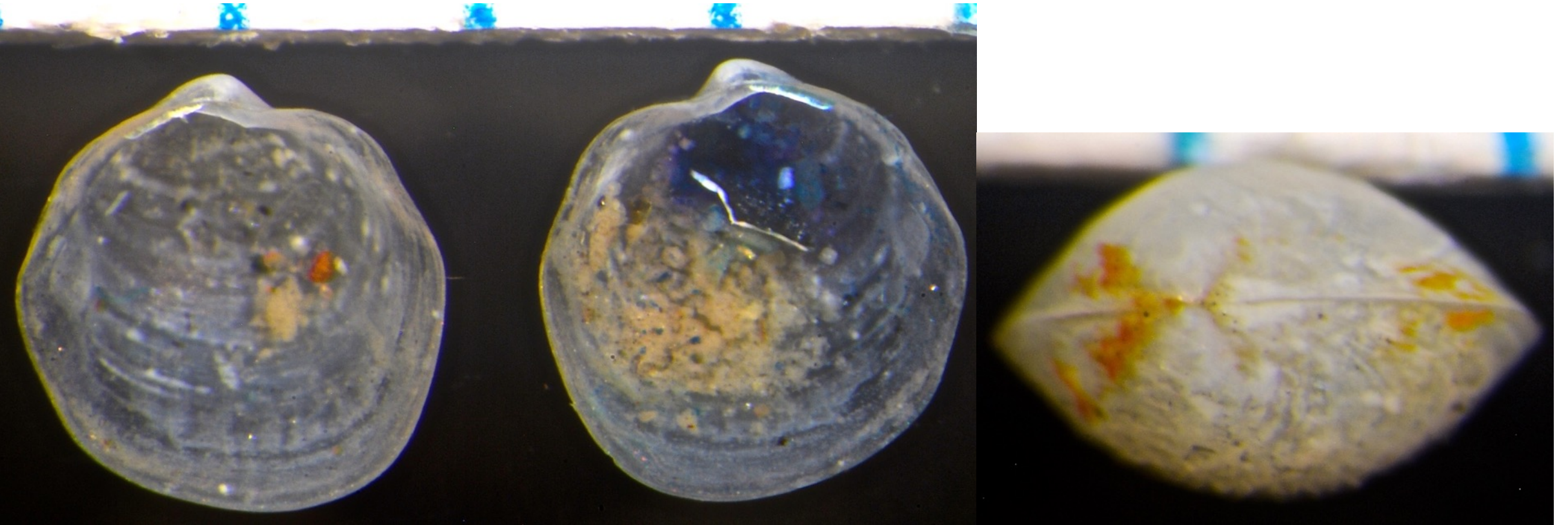


ACE LA5 150m 1983

Specimens courtesy of Carol Paquette MBC

T. Phillips for SCAMIT 11APR2022

Adontorhina cyclia Berry 1947

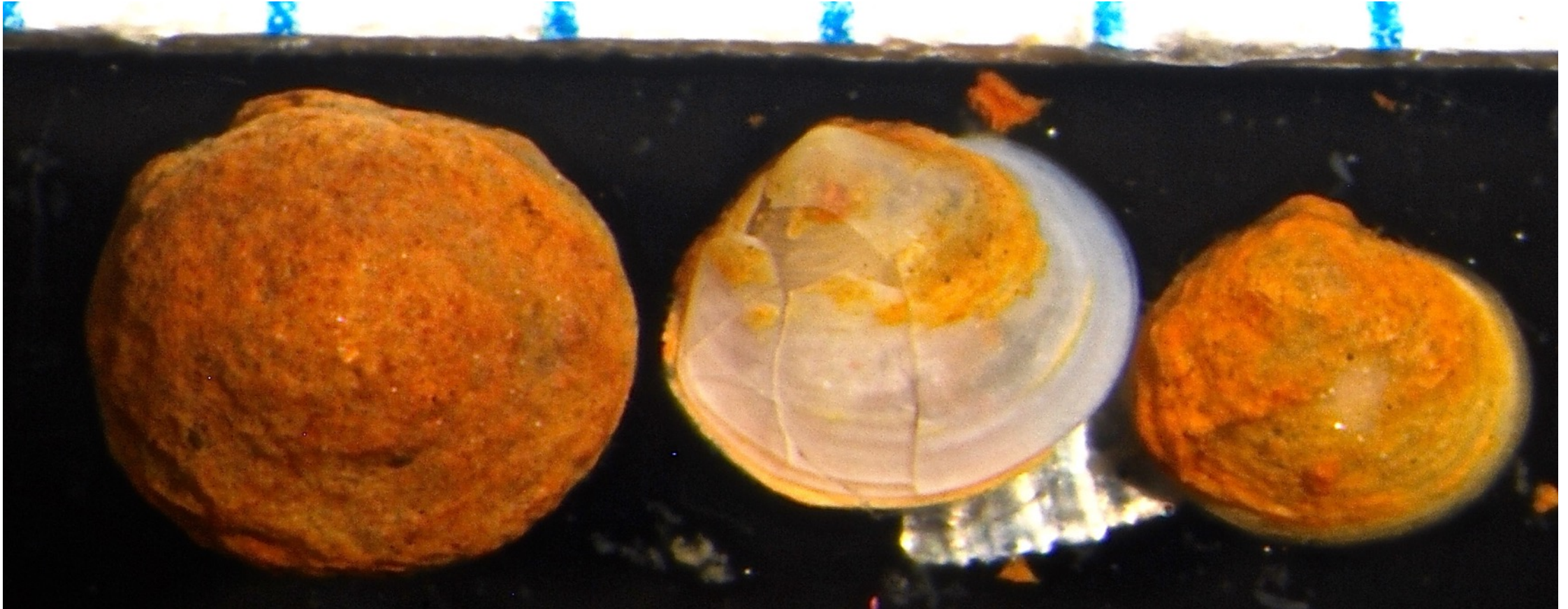


left valve

LA5 150m 1983
right valve

dorsal view

Axinodon redondoensis (T. Burch 1941)



B'18 10368 San Pedro Channel 595m

T. Phillips for SCAMIT 11APR2022

Specimens courtesy of Don Cadien LACSD

Axinodon redondoensis (T. Burch 1941)

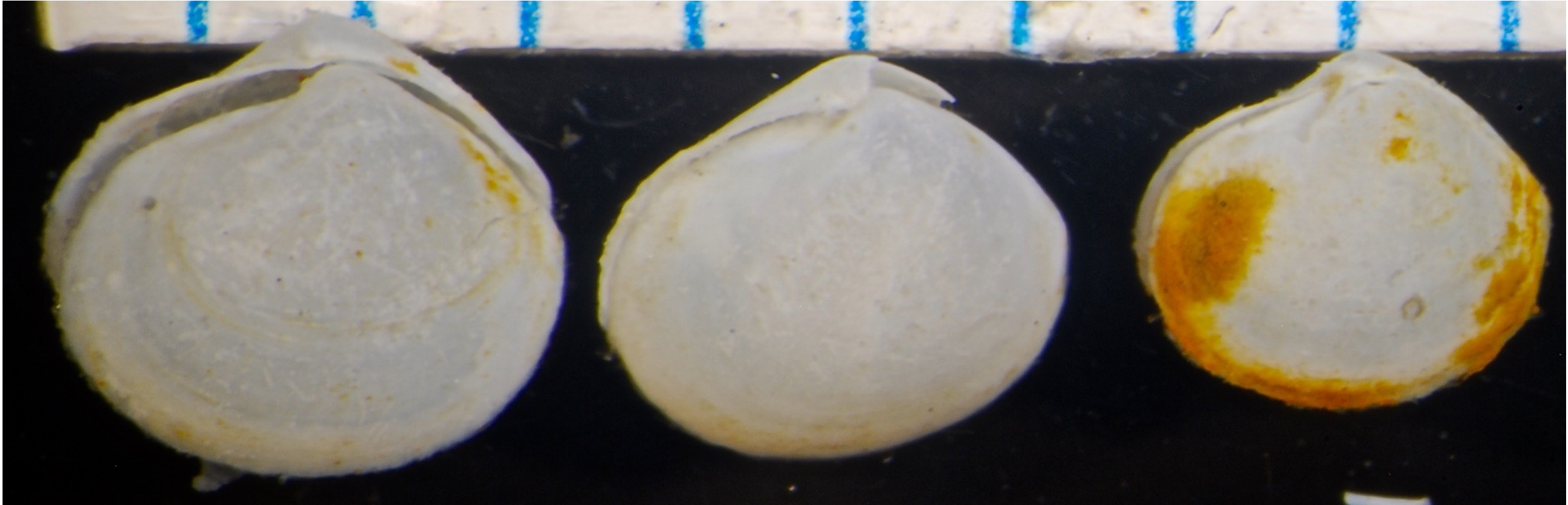


B'03 Palos Verdes Peninsula 640m

Specimens courtesy of Don Cadien LACSD

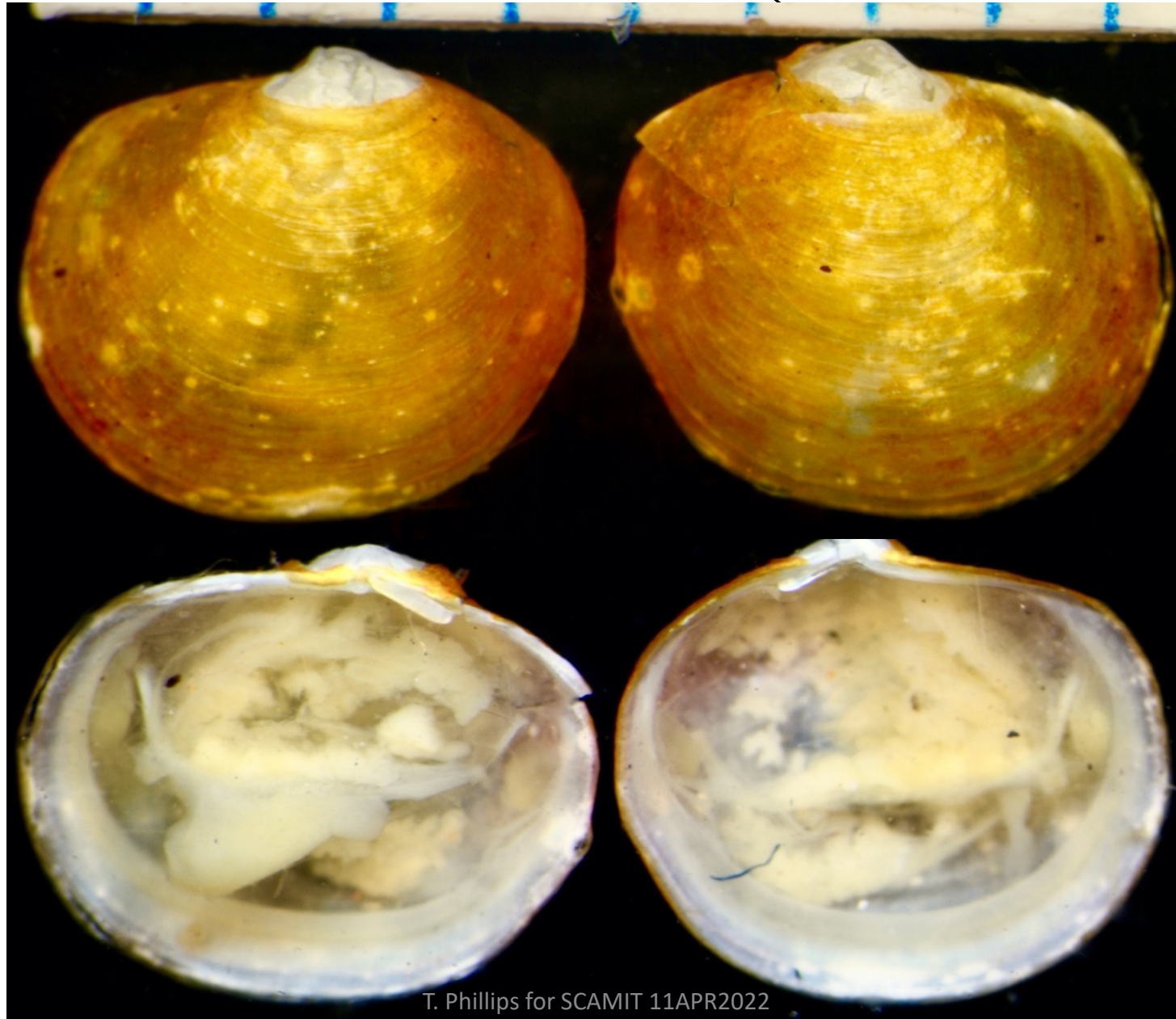
T. Phillips for SCAMIT 11APR2022

Axinodon redondoensis (T. Burch 1941)



B'03 Palos Verdes Peninsula 713m

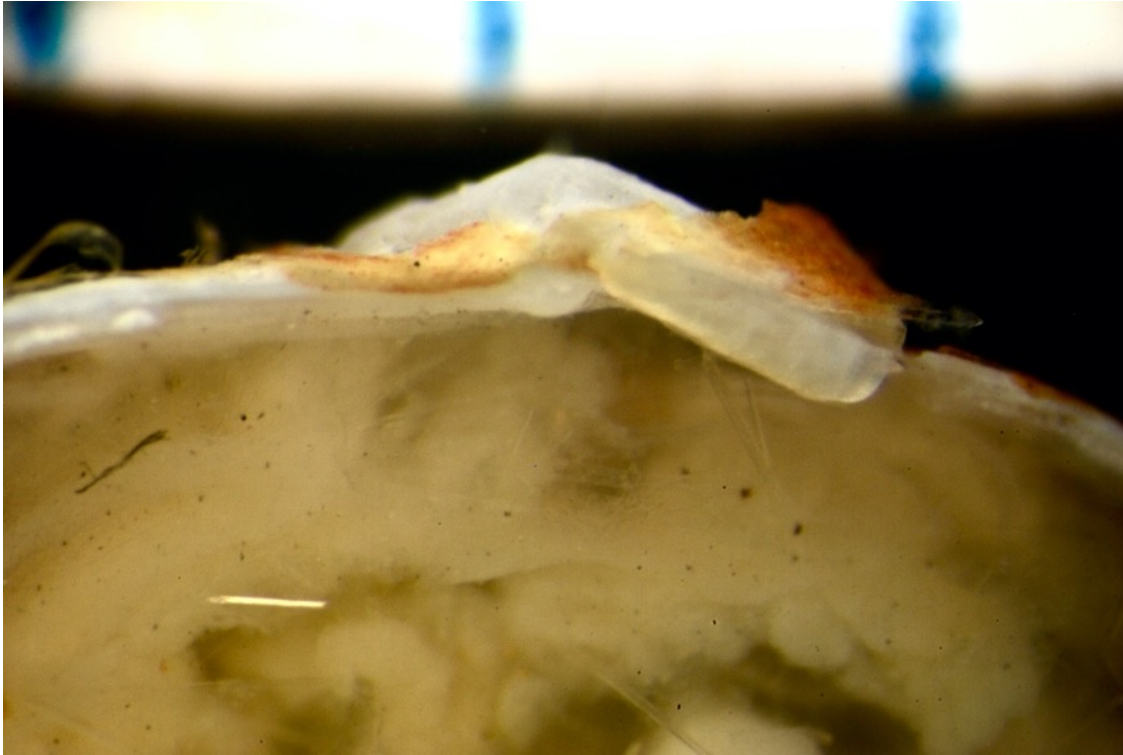
Axinodon redondoensis (T. Burch 1941)



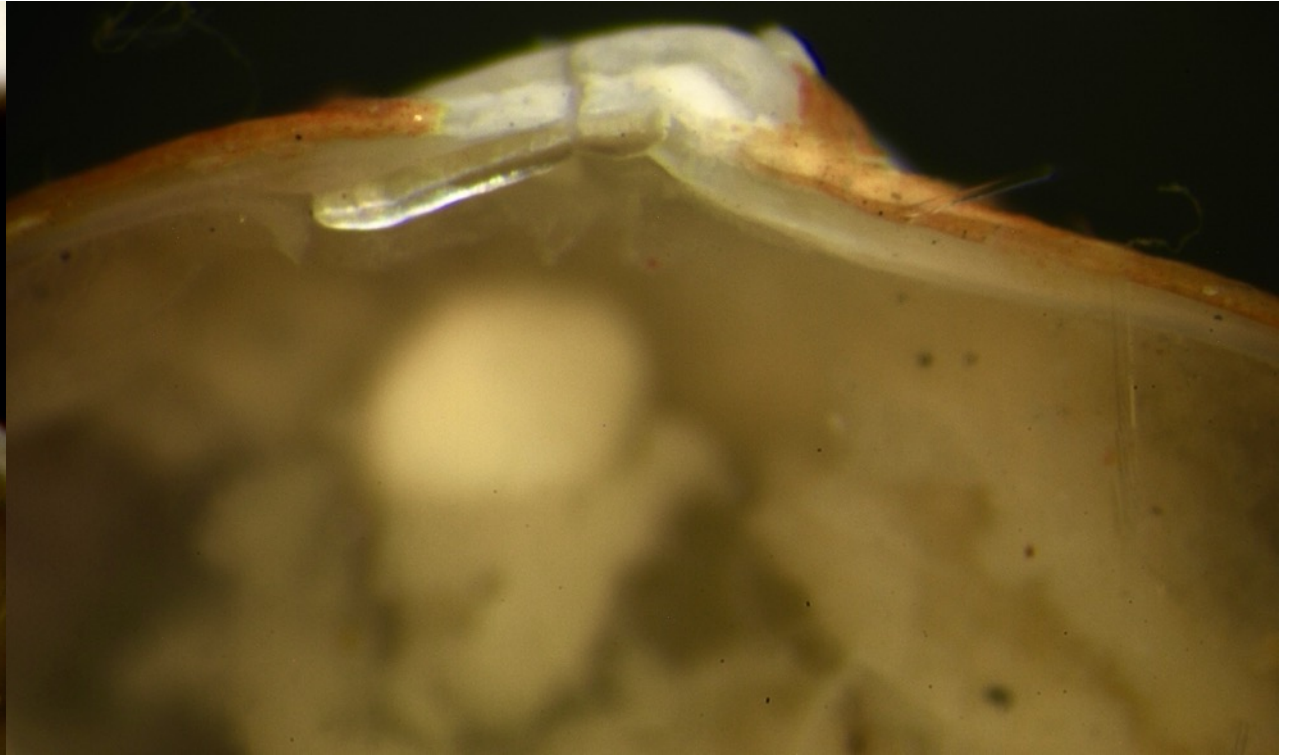
CSD Voucher M97
B3 71m 1988

Specimen courtesy of
Wendy Enright CSD

Axinodon redondoensis (T. Burch 1941)



left hinge



right hinge

CSD Voucher M97 B3 71m 1988

Axinodon redondoensis (T. Burch 1941)



CSD Voucher M97 B3 71m 1988

Specimen courtesy of Wendy Enright CSD

T. Phillips for SCAMIT 11APR2022

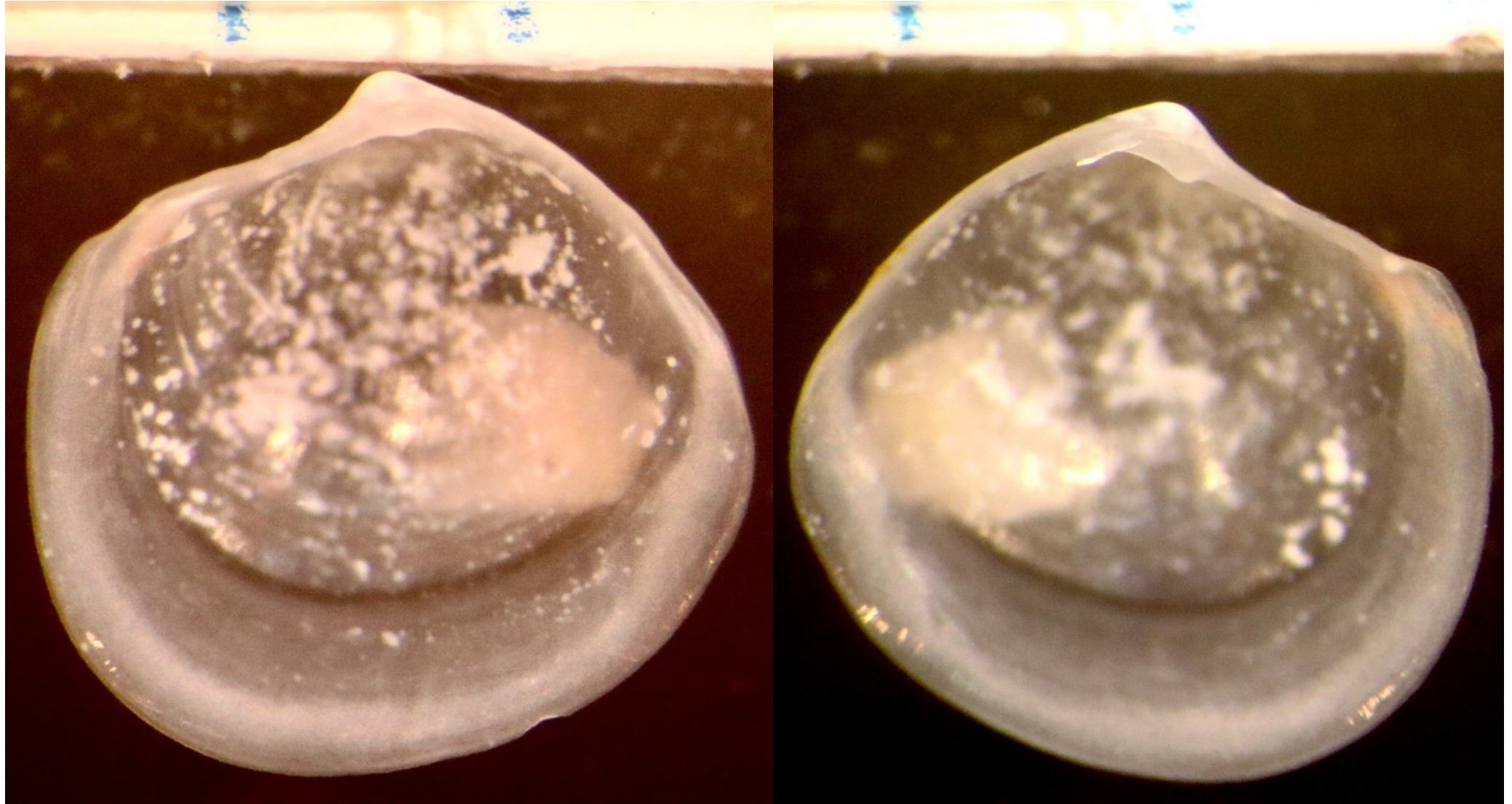
Axinopsida serricata (Carpenter 1864)



City of San Diego E19 90m 2019

T. Phillips for SCAMIT 11APR2022

Axinopsida serricata (Carpenter 1864)



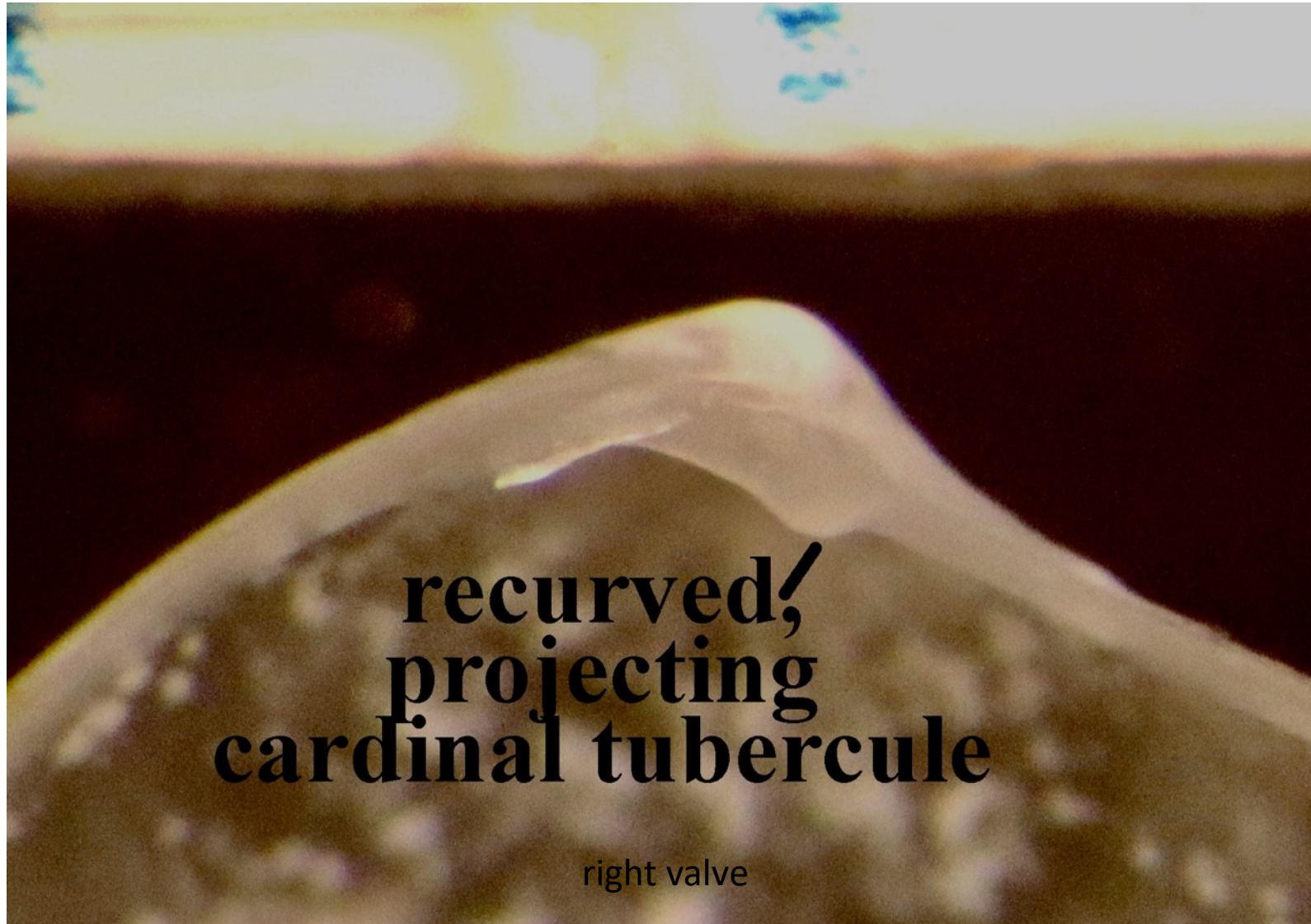
left valve

B'18 10291 Oxnard 147m

T. Phillips for SCAMIT 11APR2022

right valve

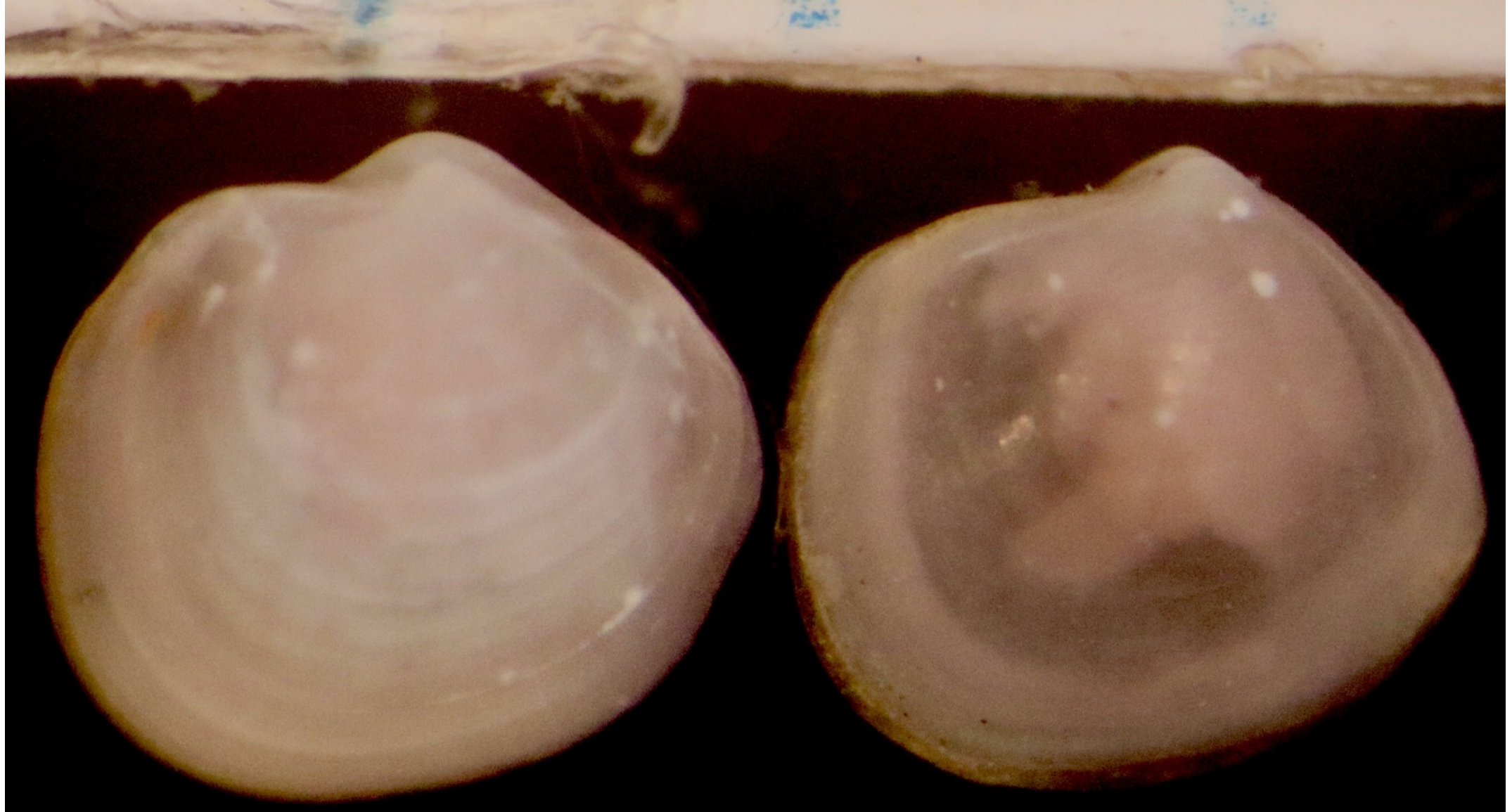
Axinopsida serricata (Carpenter 1864)



B'18 10291 Oxnard 147m

T. Phillips for SCAMIT 11APR2022

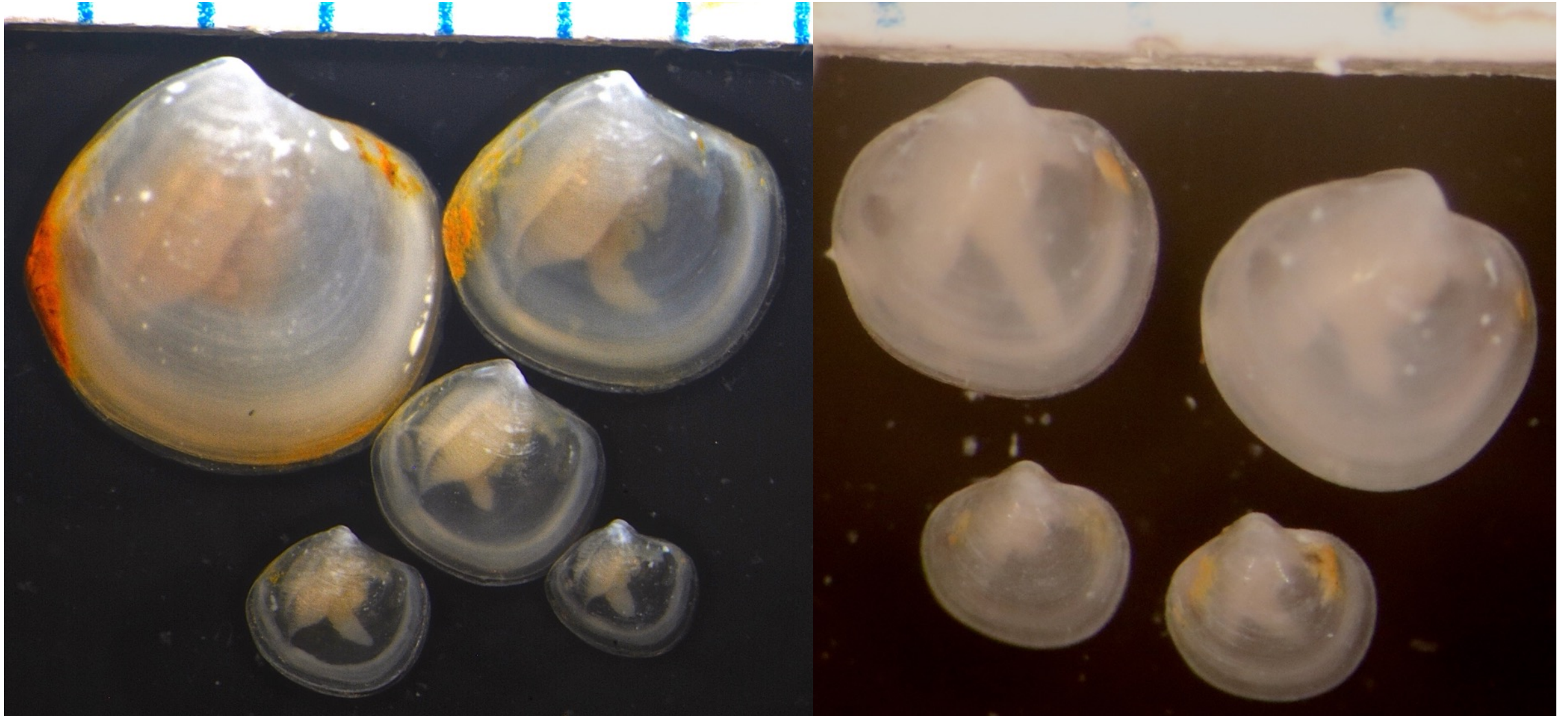
Adontorhina cyclia/*Axinopsida serricata*



WEMAP CA03 3139 6/14/2003

T. Phillips for SCAMIT 11APR2022

Axinopsida serricata/Adontorhina cyclia

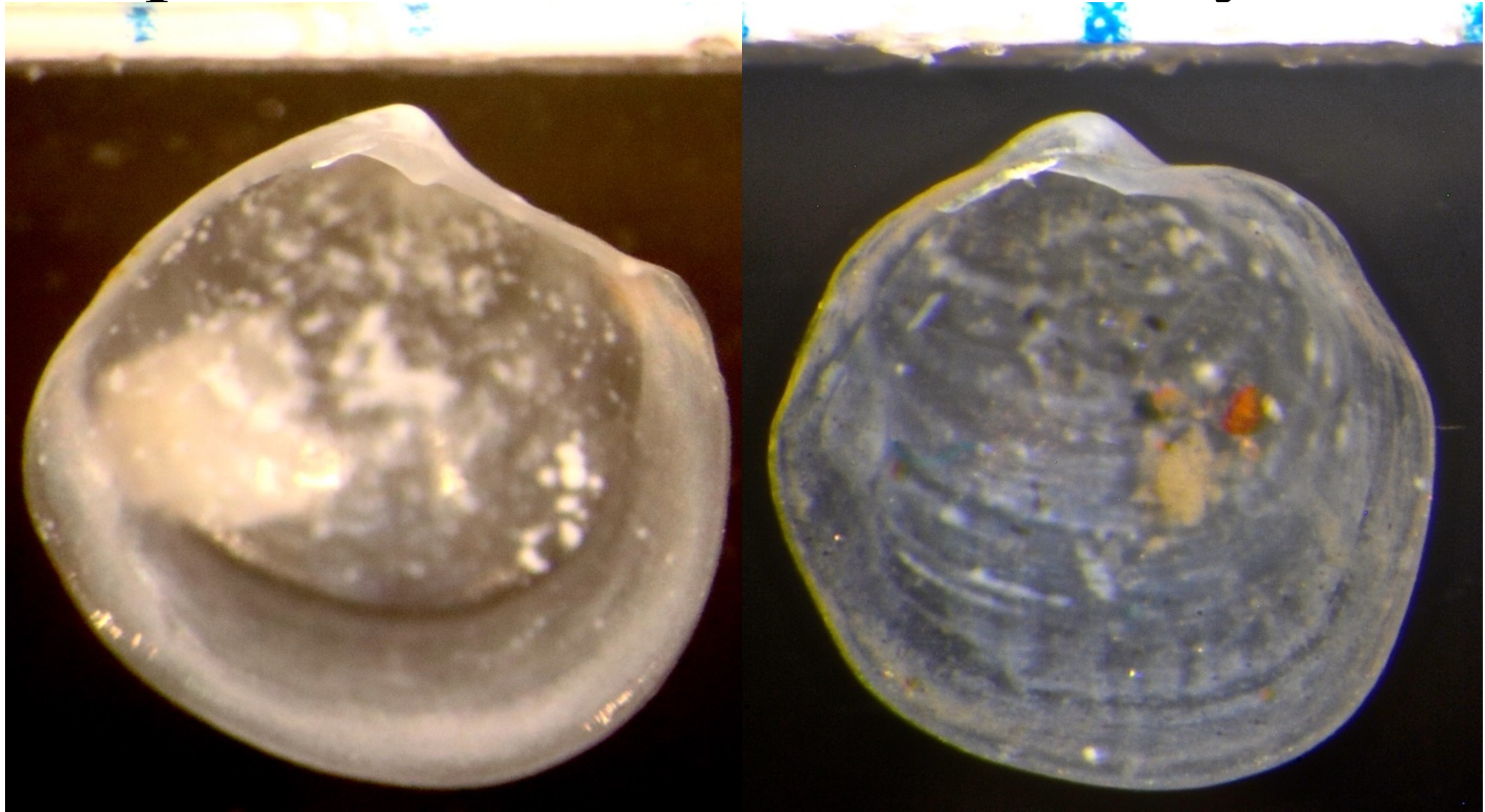


City of San Diego E19 90m Feb 2019

T. Phillips for SCAMIT 11APR2022

WEMAP CA03 3139 6/14/2003

Axinopsida serricata/*Adontorhina cyclia*

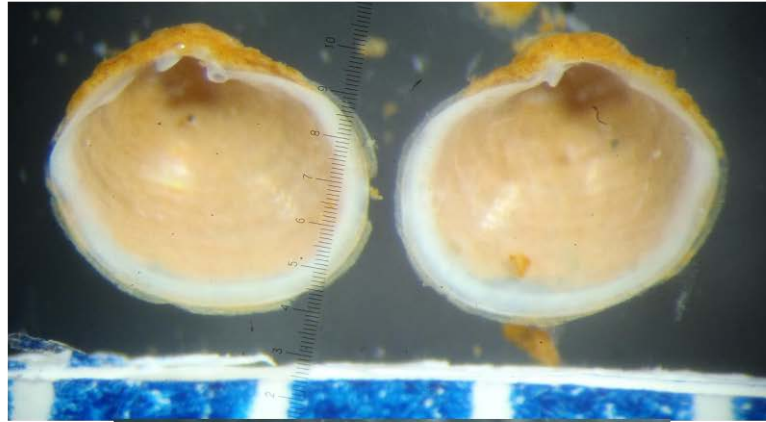


B'18 10291 Oxnard 147m

LA5 159m 1983

right valves

Mendicula ferruginosa (Forbes 1844)



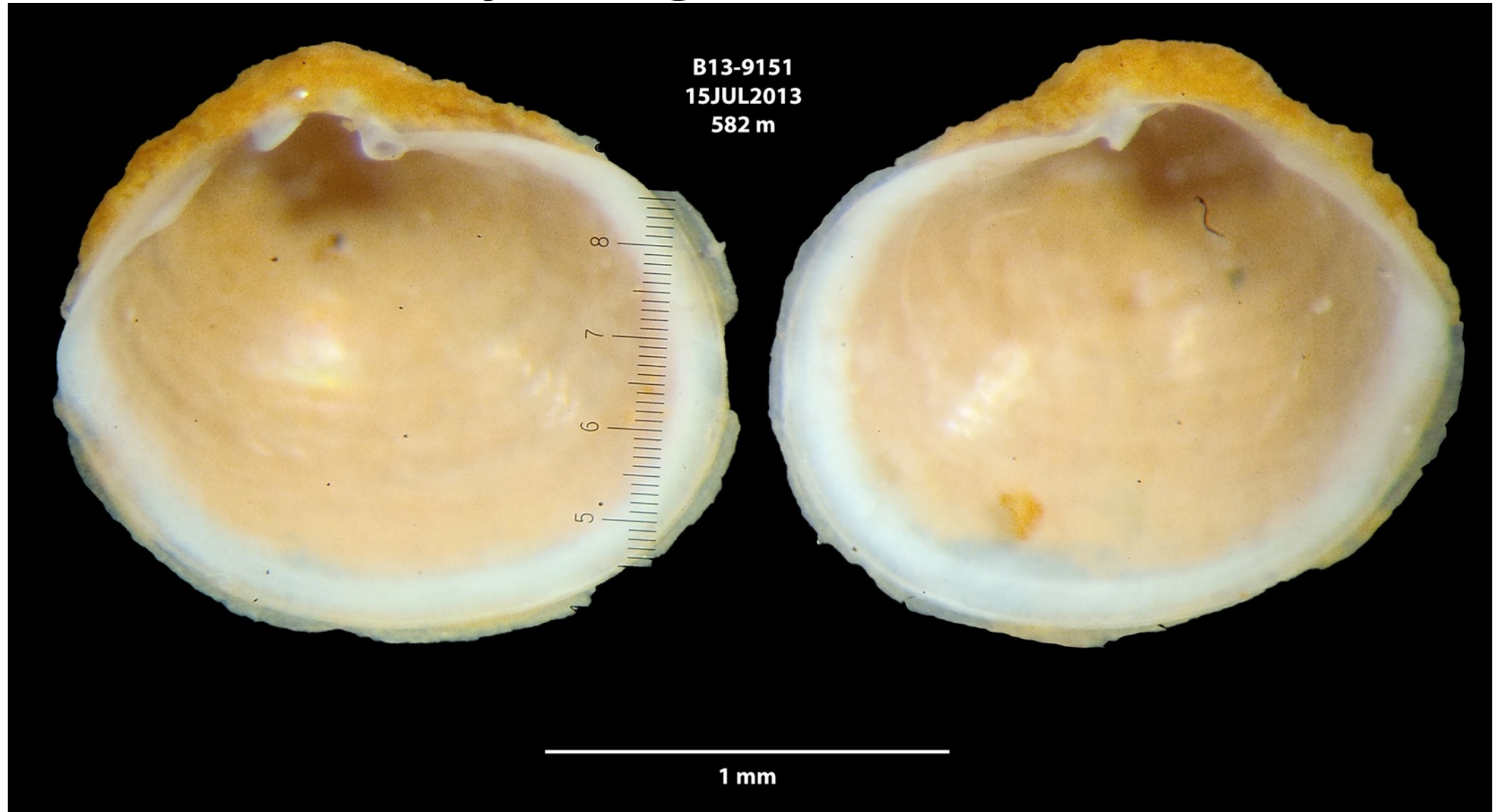
Bight 2013
Sta. 9151
15JUL2013
582 m

Mendicula ferruginosa
(Forbes 1844)

Photos courtesy of Kelvin Barwick

T. Phillips for SCAMIT 11APR2022

Mendicula ferruginosa (Forbes 1844)

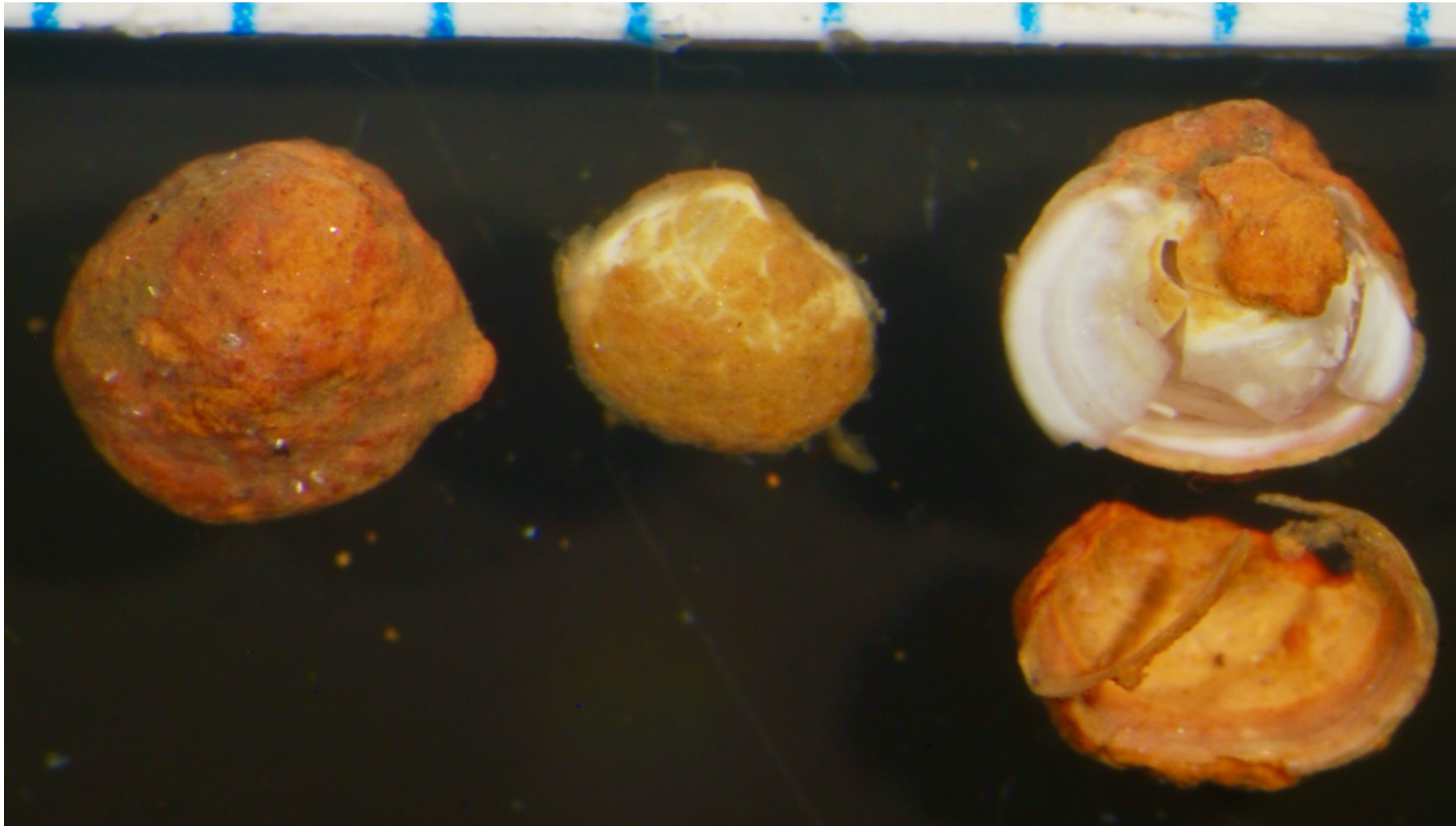


left valve

T. Phillips for SCAMIT 11APR2022

right valve

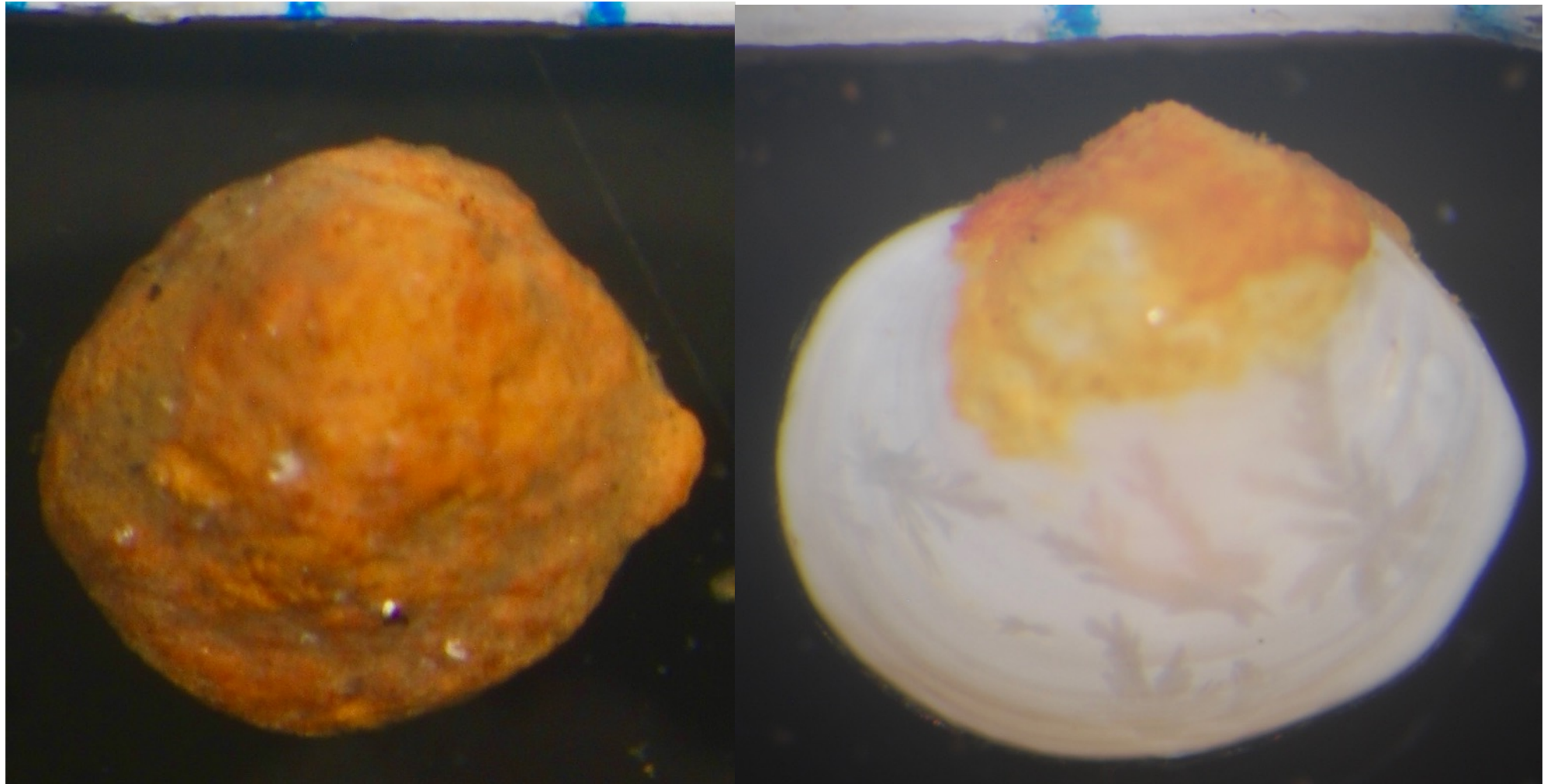
Mendicula ferruginosa (Forbes 1844)



B'18 9047 San Diego Slope 668m

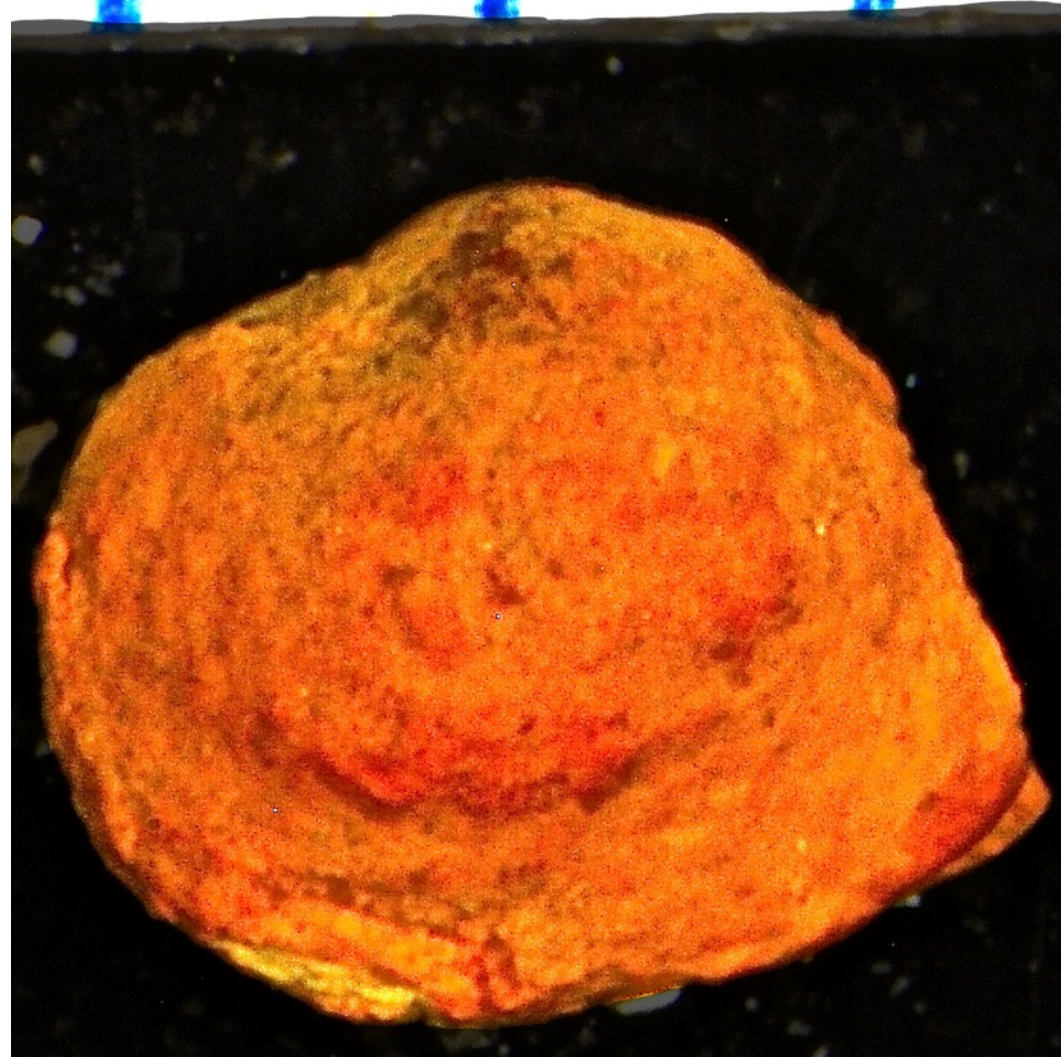
T. Phillips for SCAMIT 11APR2022

Mendicula ferruginosa (Forbes 1844)



B' 18 9047 San Diego Slope 668m

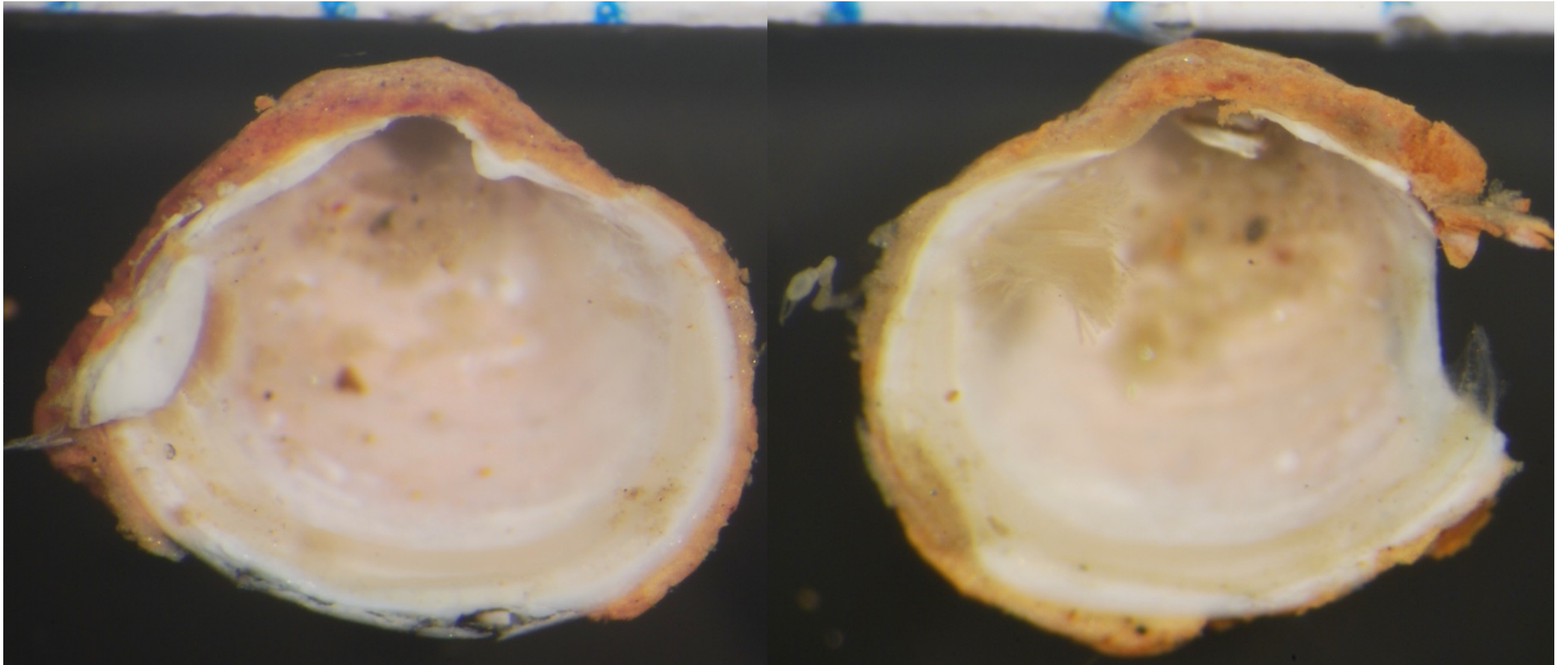
Mendicula ferruginosa (Forbes 1844)



B'13 9295 Pt. Dume Canyon 690m

T. Phillips for SCAMIT 11APR2022

Mendicula ferruginosa (Forbes 1844)



left hinge

B'13 9295 Pt. Dume Canyon 690m

T. Phillips for SCAMIT 11APR2022

right hinge

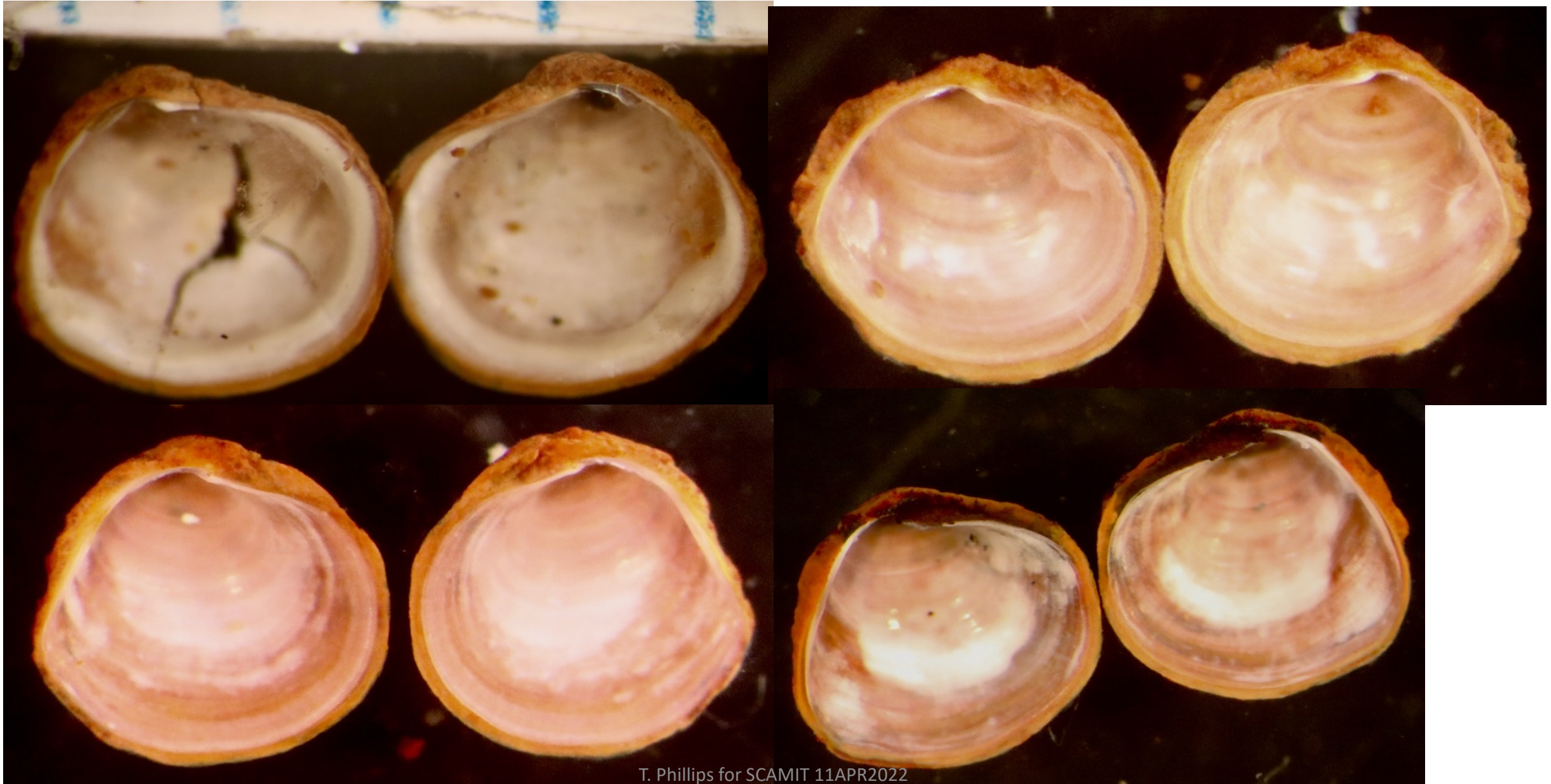
Mendicula



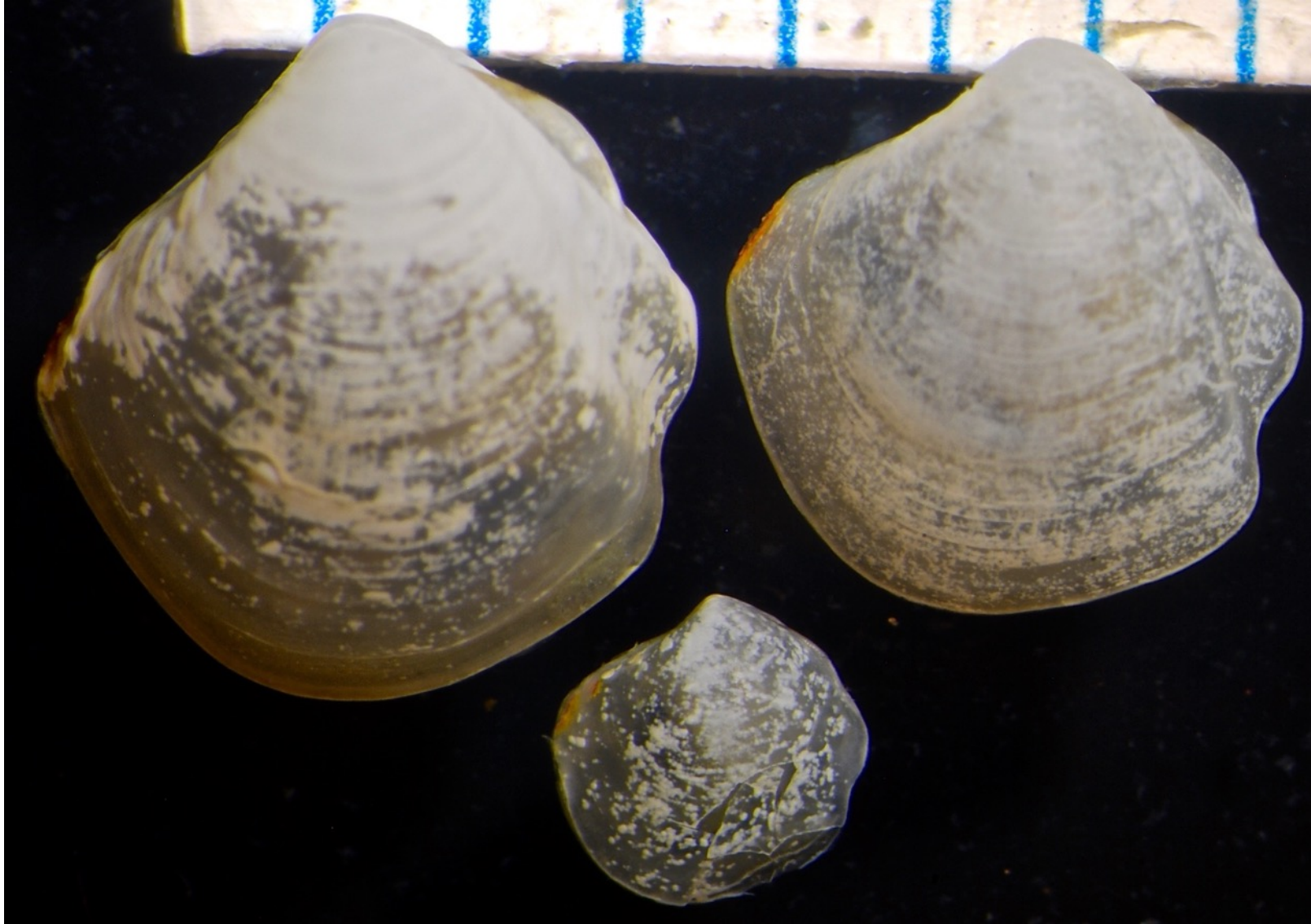
Angola Block 15 ES121-05 1304m 2/8/21

T. Phillips for SCAMIT 11APR2022

Mendicula



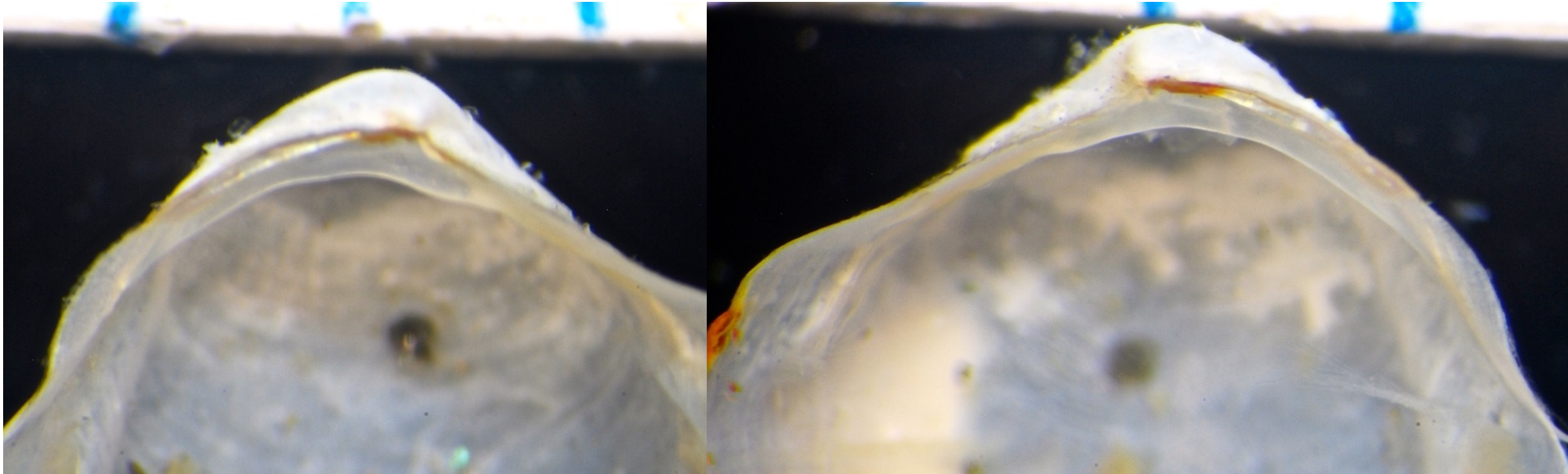
Thyasira flexuosa (Montagu 1803)



Long Beach Harbor Anchor GWMA LB12 10m 2018

T. Phillips for SCAMIT 11APR2022

Thyasira flexuosa (Montagu 1803)

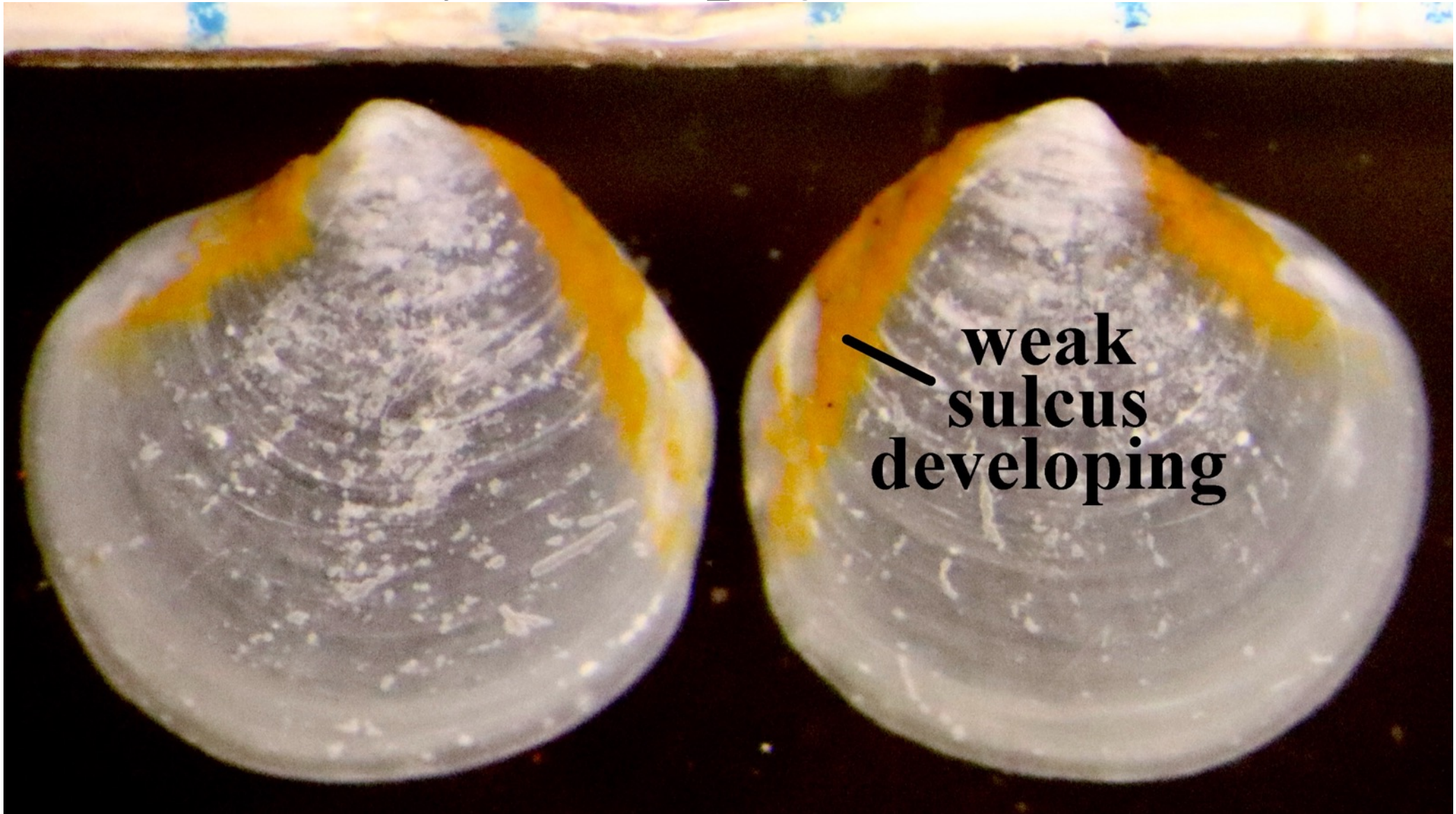


left hinge

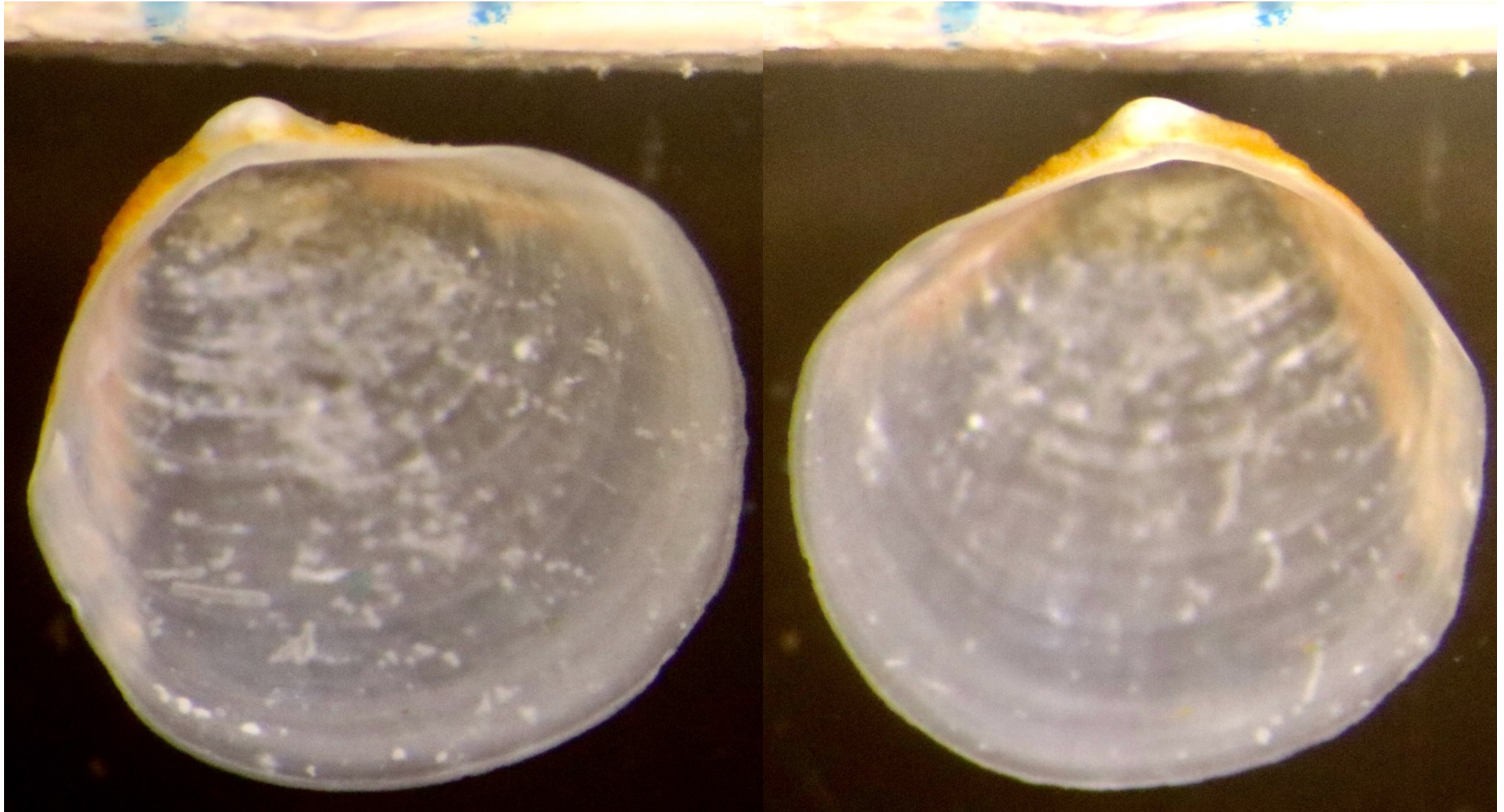
Arcadis POLA R03-SS 10m 2016

right hinge

Thyasira sp (juvenile)



Thyasira sp (juvenile)



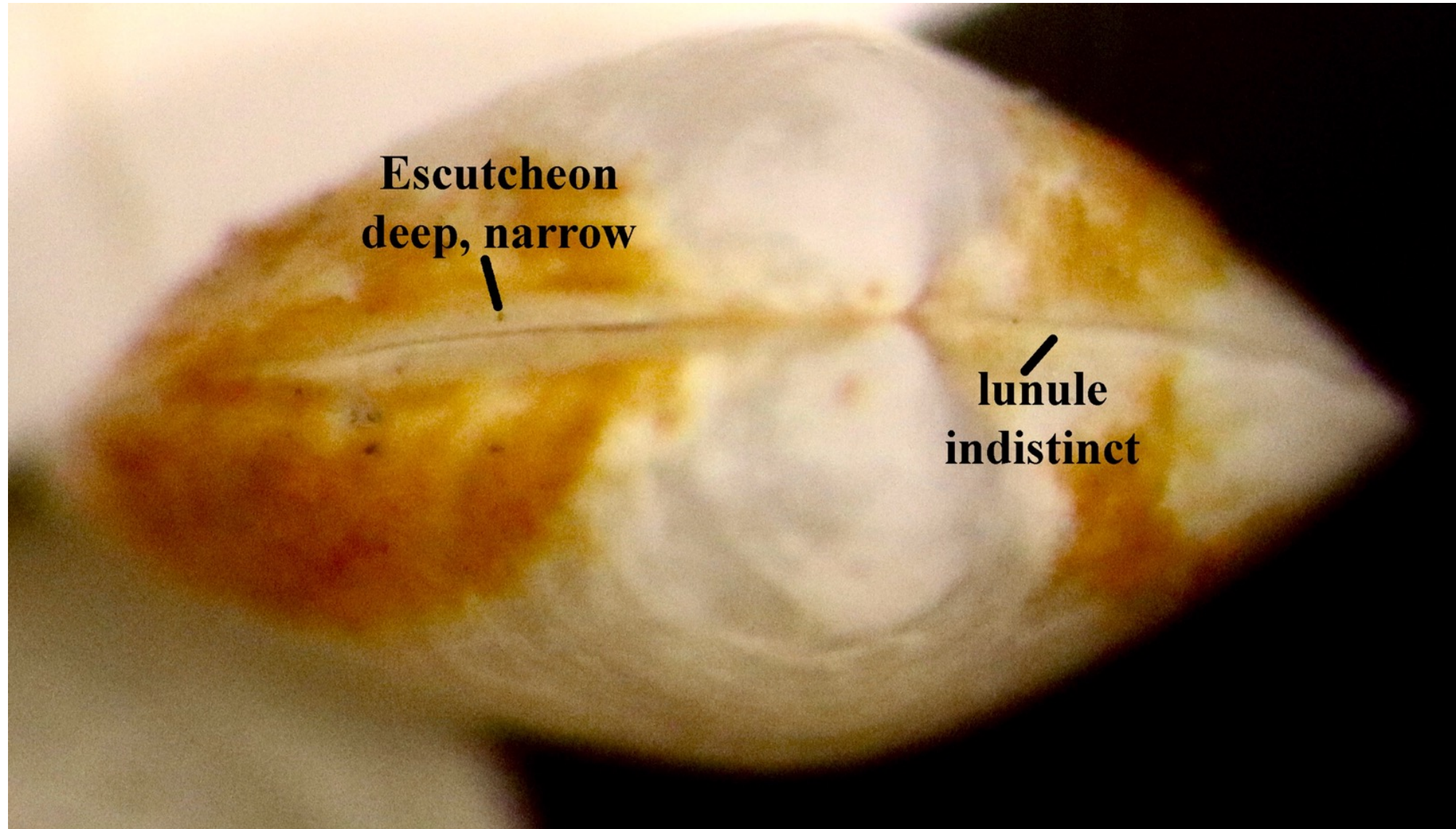
MMS CARP TS7SB28 600m 11/24/87

left valve

T. Phillips for SCAMIT 11APR2022

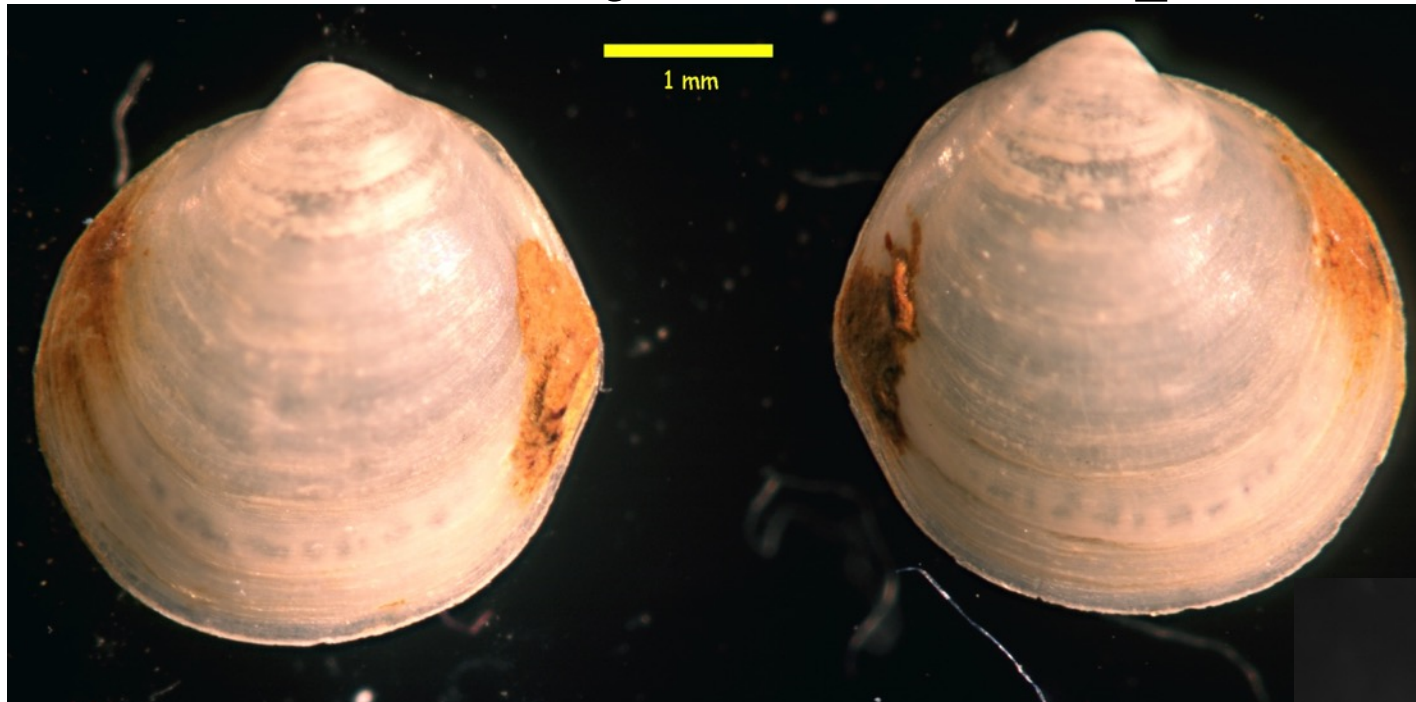
right valve

Thyasira sp (juvenile)



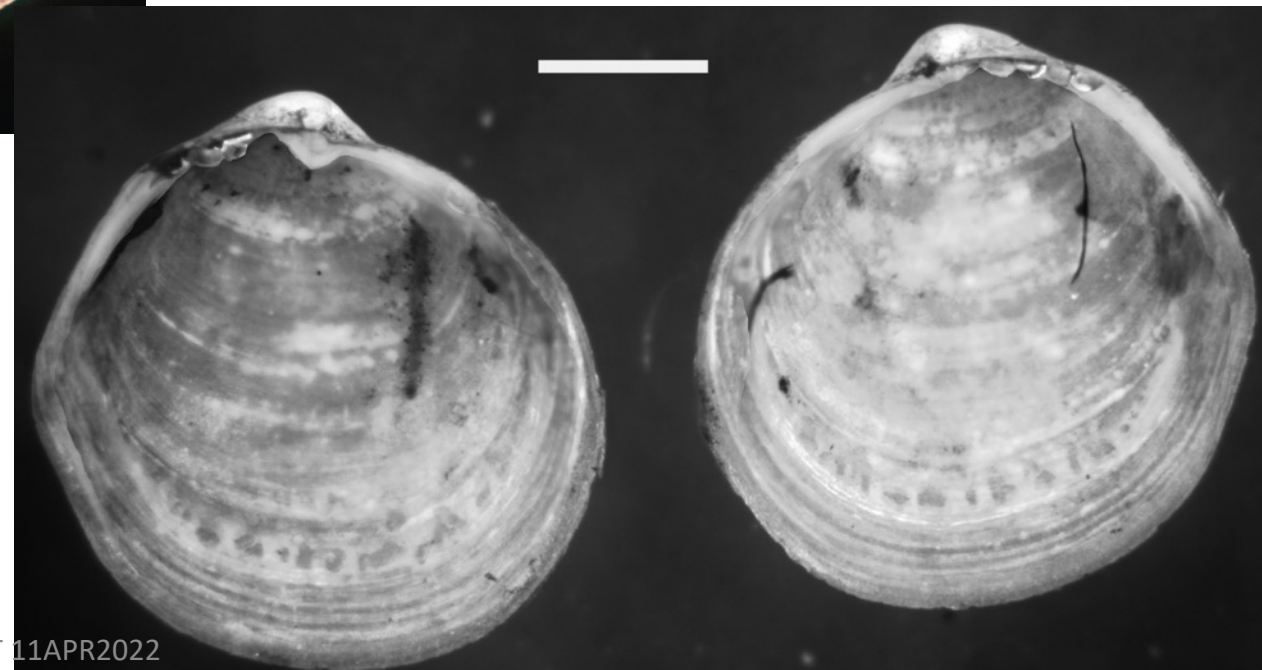
MMS CARP TS7SB28 600m 11/24/87

Thyasiridae sp LA1 Cadien 1999

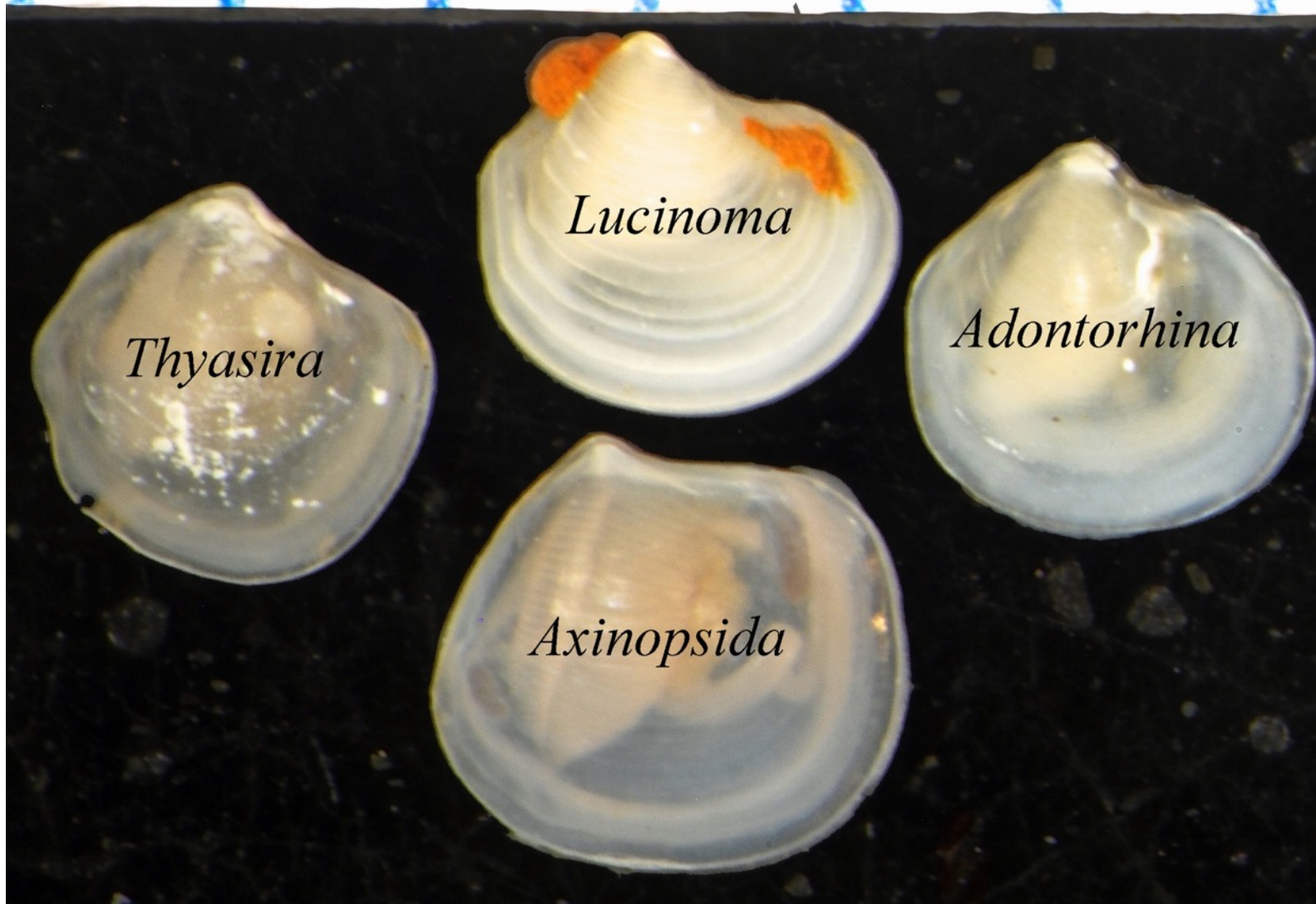


Photos courtesy of Kelvin Barwick

B'98 2491 San Miguel Island 95m



Lucinidae/Thyasiridae (juveniles)



Santa Monica Bay E6 150m 2014

T. Phillips for SCAMIT 11APR2022

Order Venerida

Family Lasaeidae

- 1. Sculpture of commarginal lirae or ribs**
- 2. Hinge plate variable; with at least one strong cardinal and lateral teeth, in some species left valve edentulous**
- 3. Ligament usually internal, in resifer**

Aligena trigonalis (Carpenter 1857)

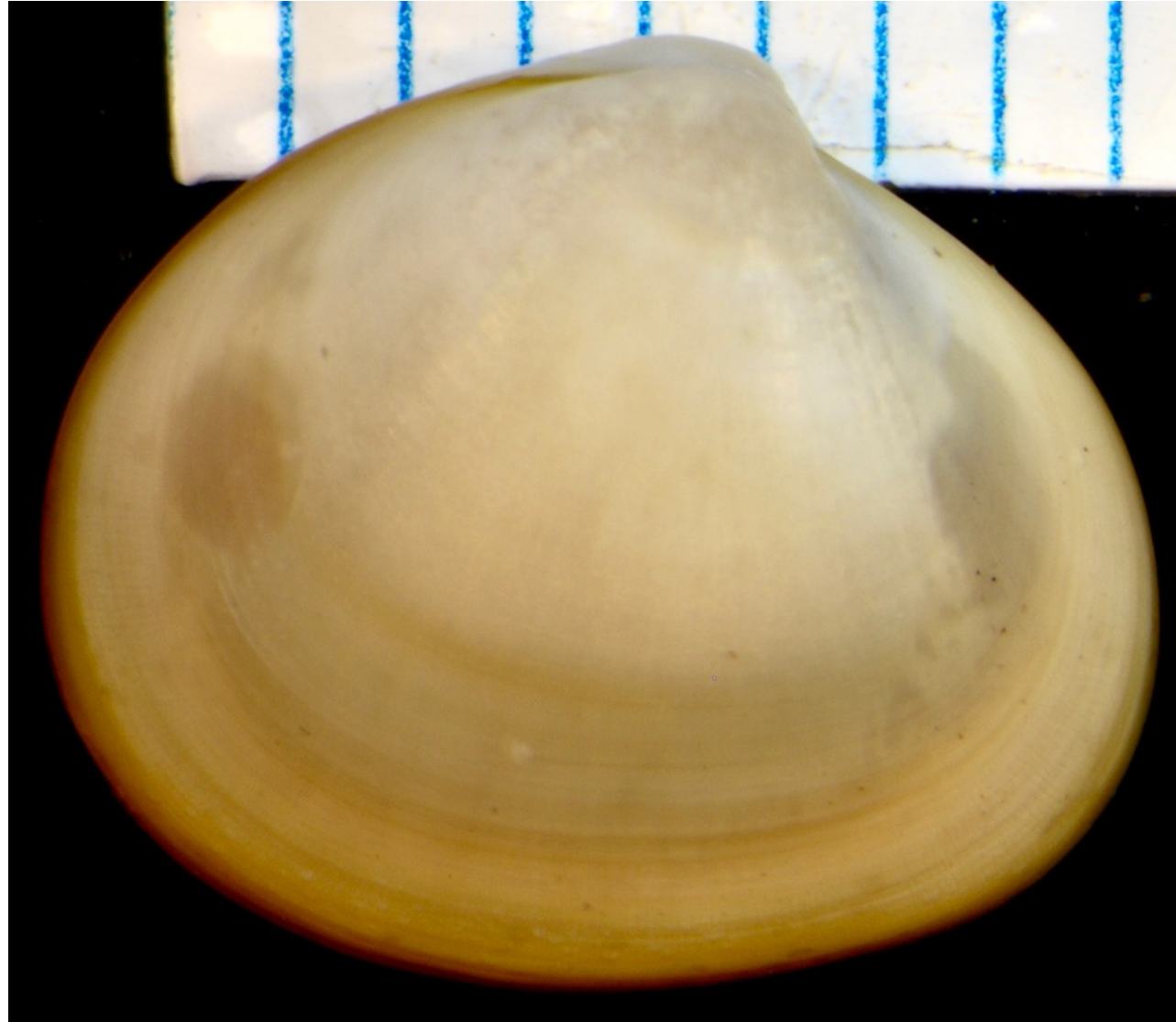


Point La Jolla ISS 0596QX13 Intertidal

Photo courtesy of Kelvin Barwick

T. Phillips for SCAMIT 11APR2022

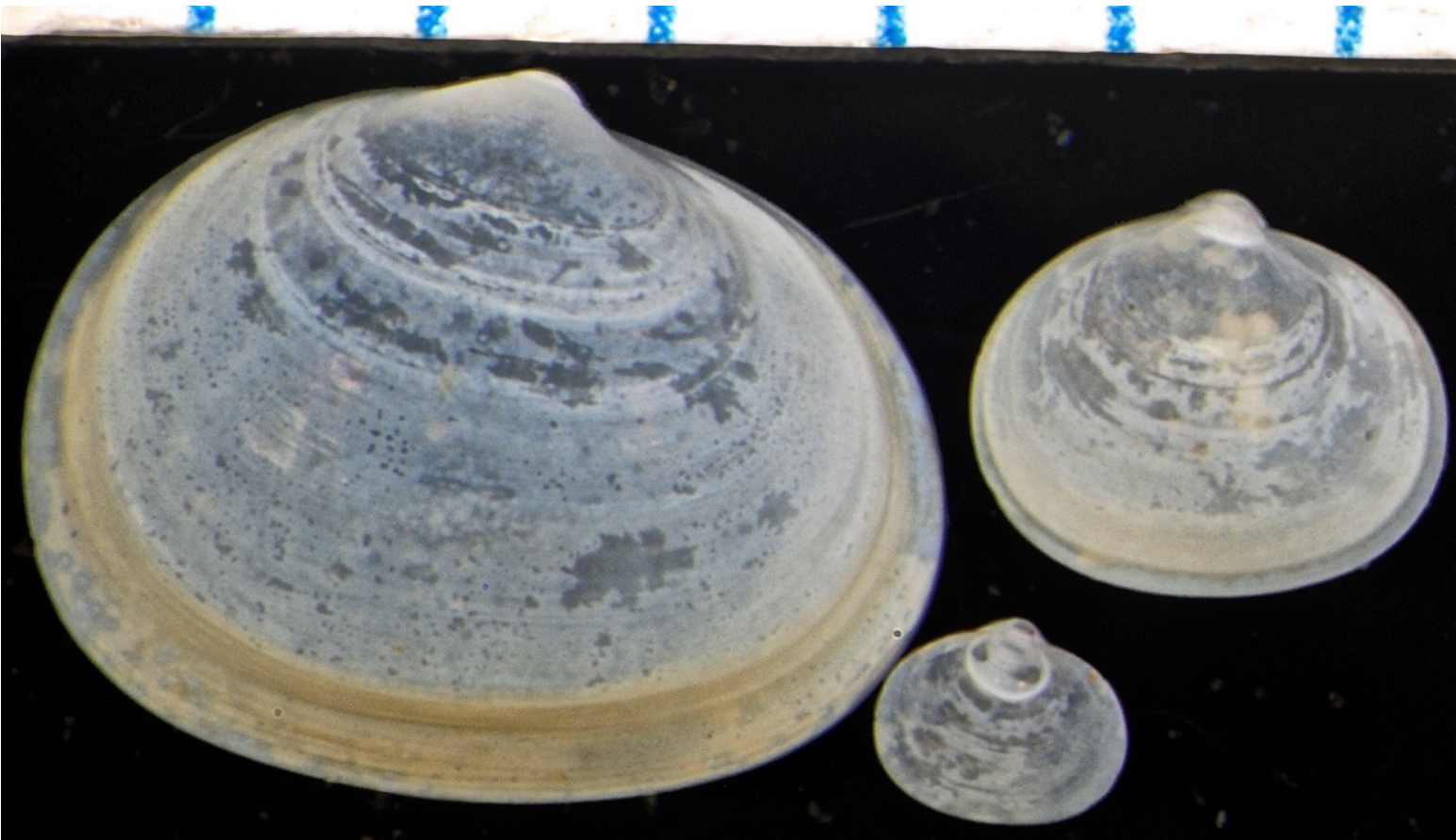
Kellia suborbicularis (Montagu 1803)



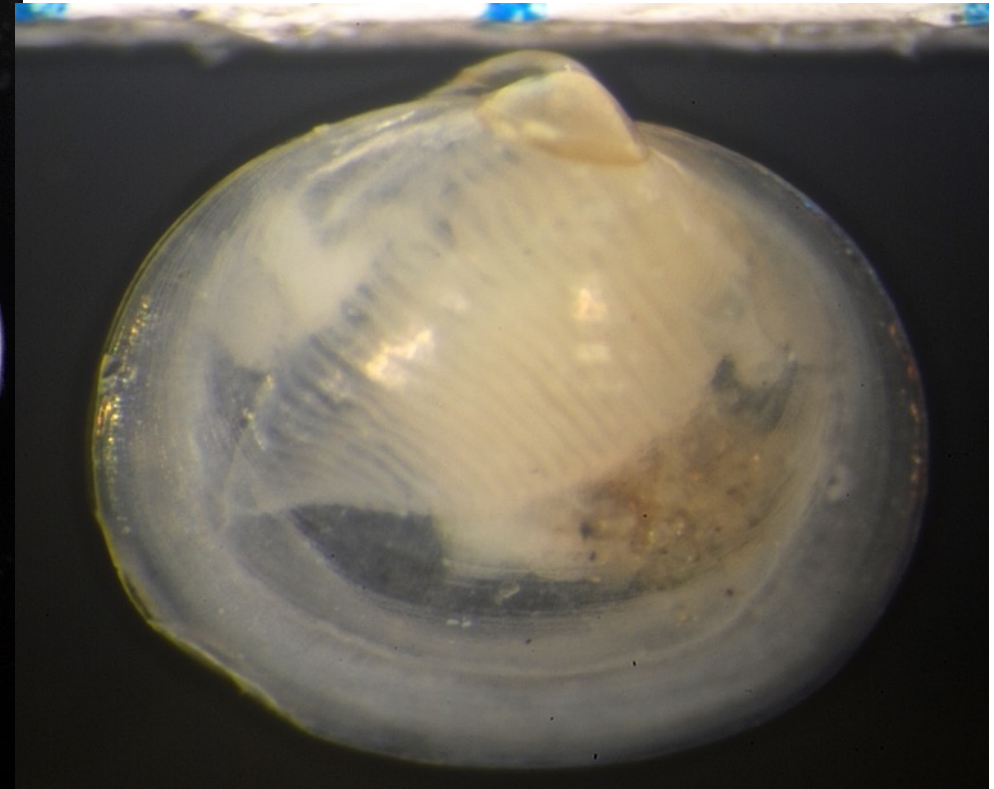
ISS Moss Landing 3453QX13 10/10/06

T. Phillips for SCAMIT 11APR2022

Kellia suborbicularis (Montagu 1803)

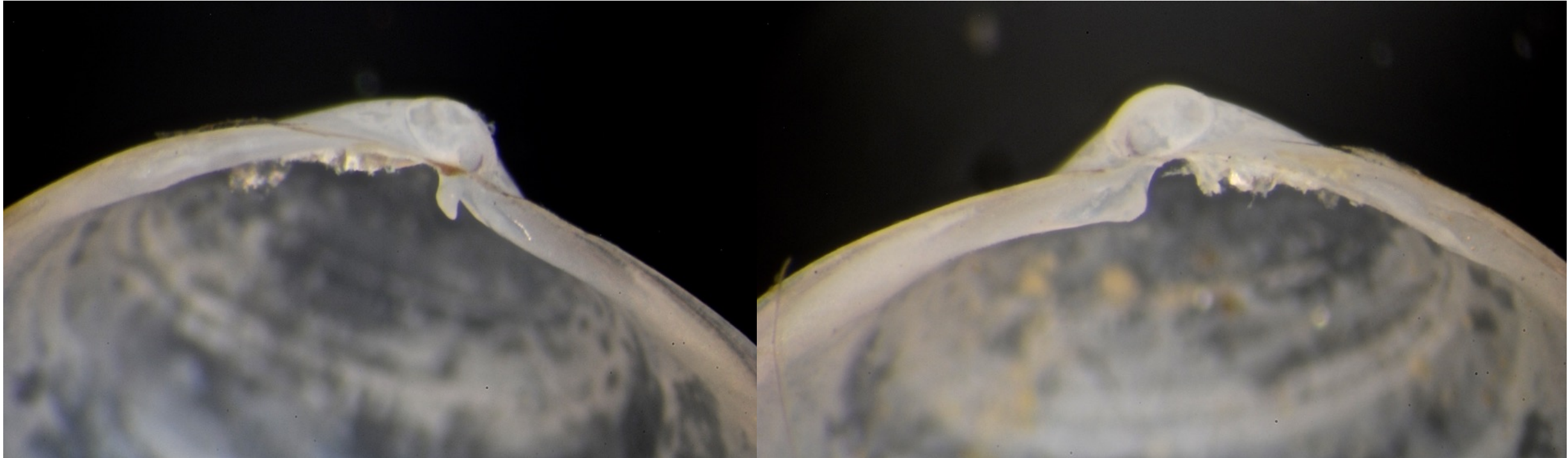


B'98 Station 2543 Santa Cruz Island 21m



Santa Maria 10m 2017

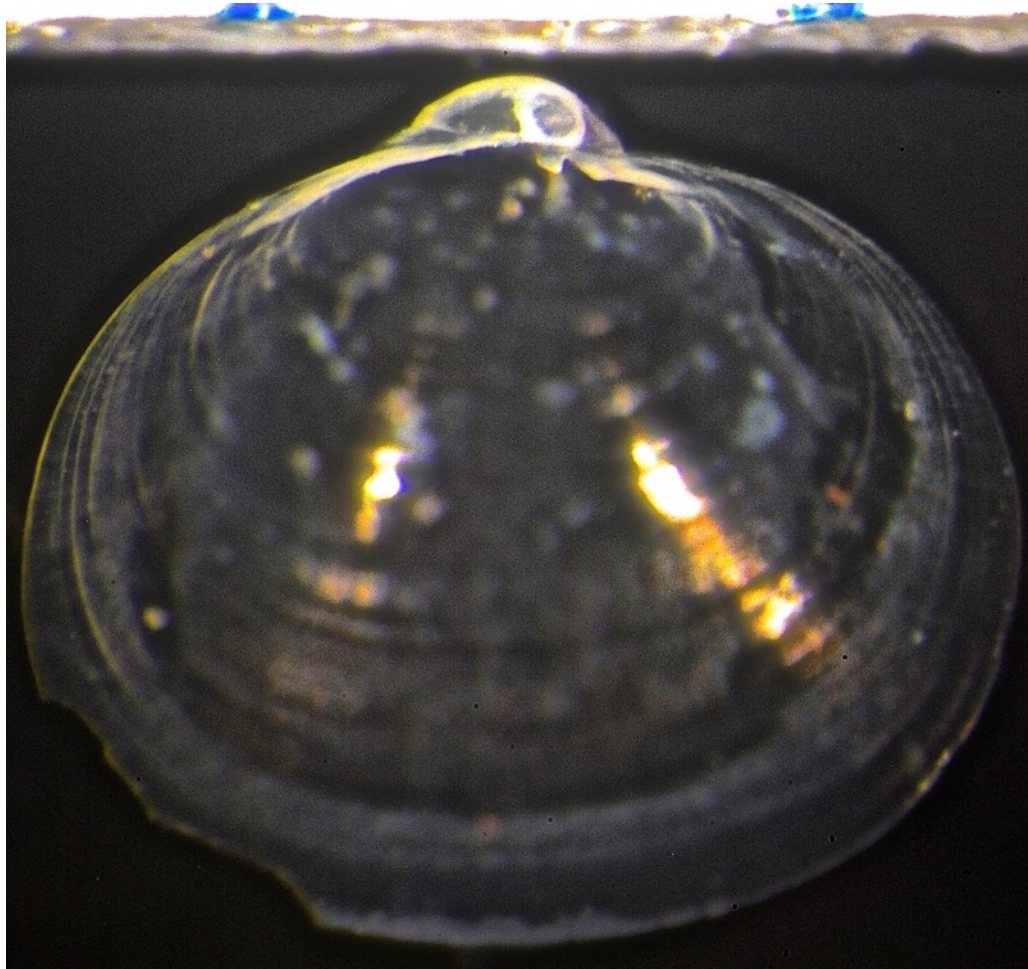
Kellia suborbicularis (Montagu 1803)



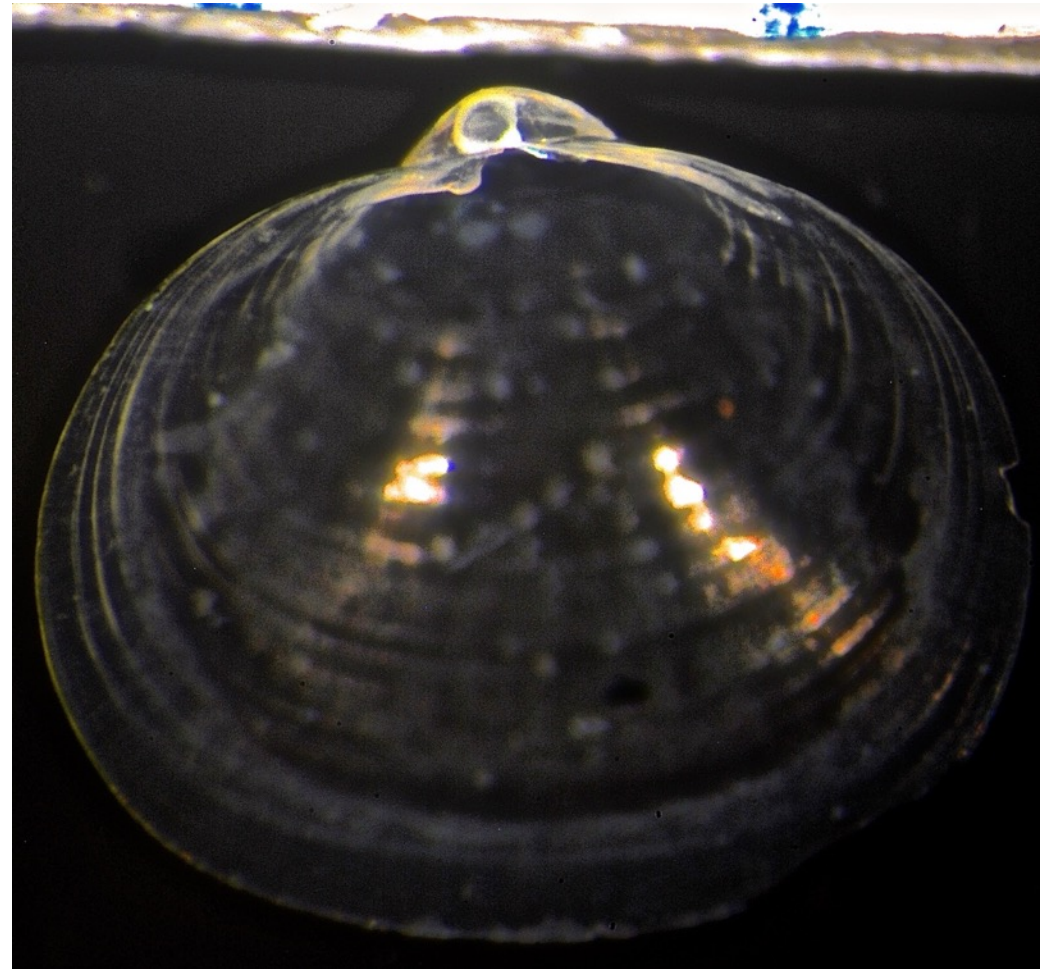
B'98 Station 2543 Santa Cruz Island 21m
left hinge

B'98 Station 2543 Santa Cruz Island 21 m
right hinge

Kellia suborbicularis (Montagu 1803)

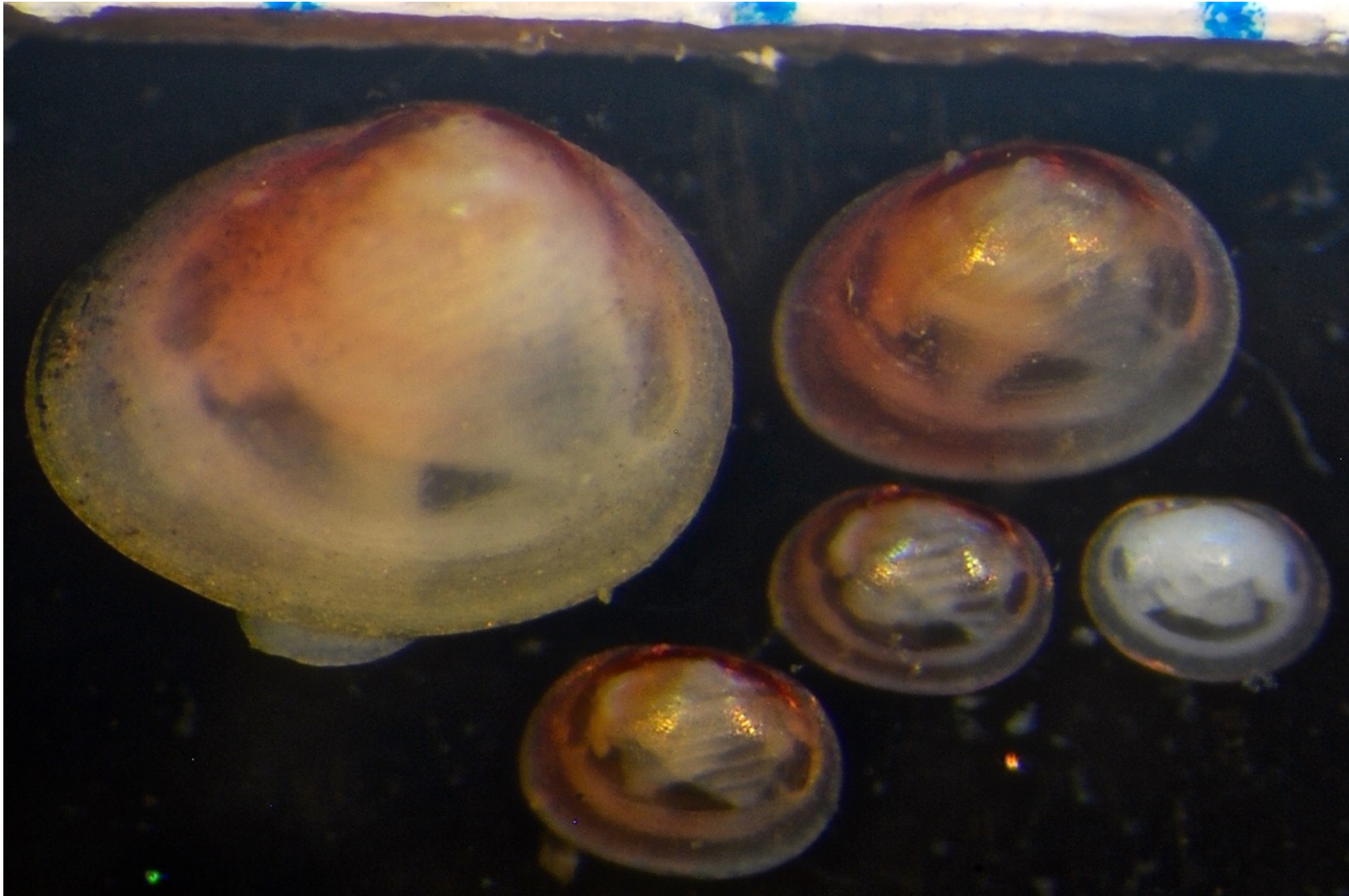


Santa Maria 20m 2017
juvenile left hinge



Santa Maria 20m 2017
juvenile right hinge

Lasaea adansonii (Gmelin, 1791)



Long Beach Harbor Pier Piling LBPP/QI-1A 2018

T. Phillips for SCAMIT 11APR2022

Lasaea adansonii (Gmelin, 1791)



left valve

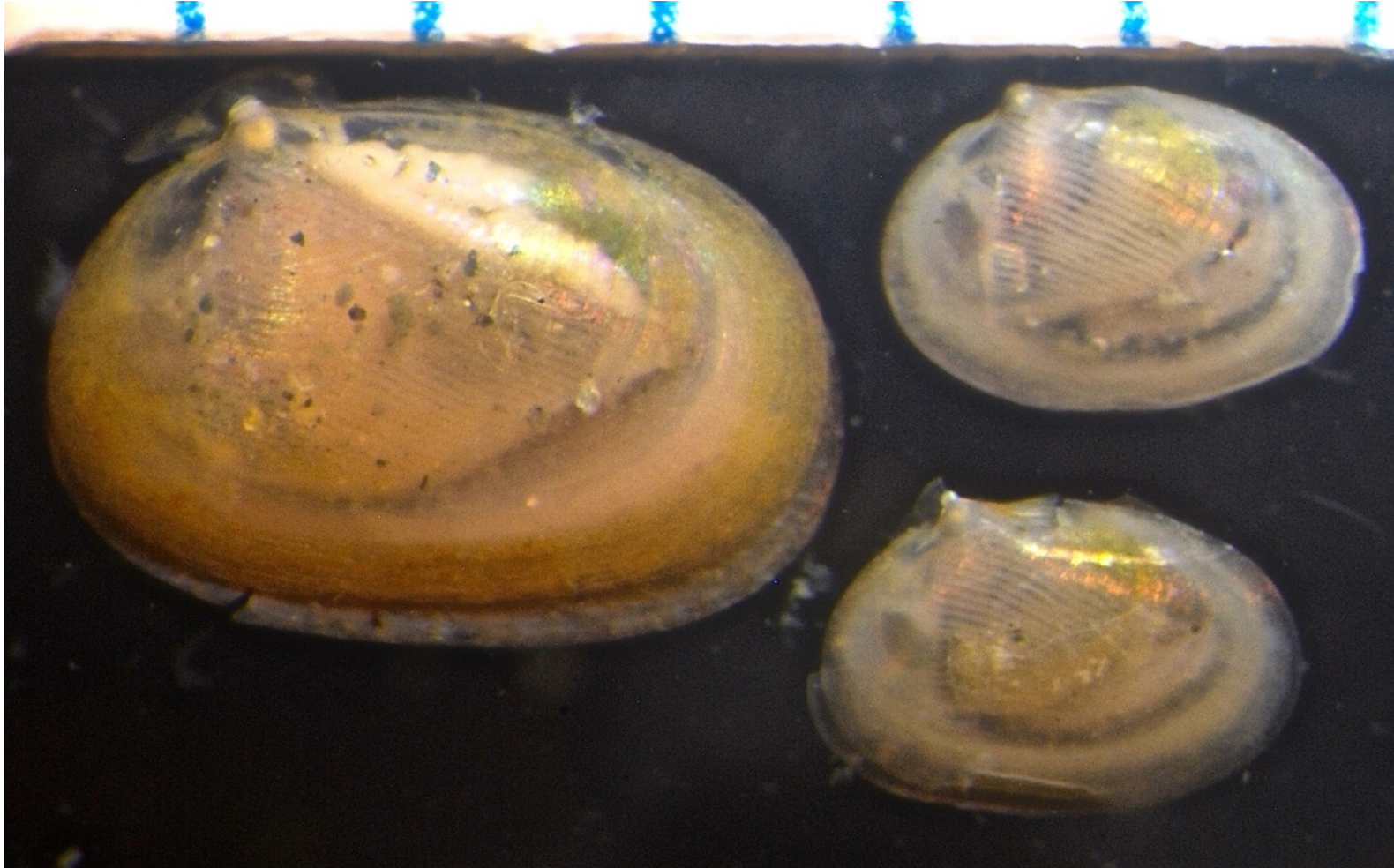
Long Beach Harbor Rip-Rap LBRR3 2013
right valve



left valve

right valve

Kurtiella coani (Scott 1998)



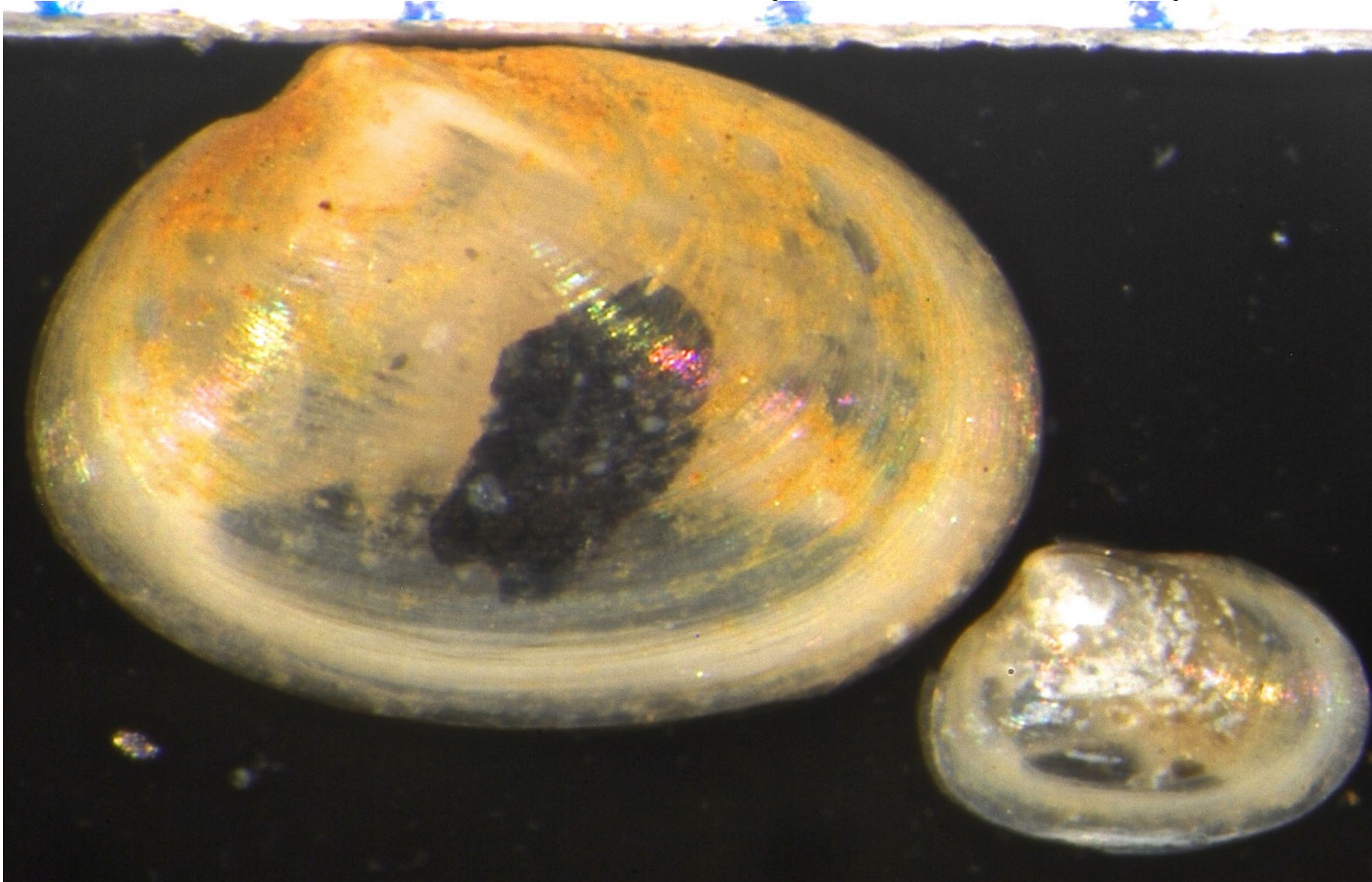
B'18 10056 Los Alamitos Bay 2m

Kurtiella coani (Scott 1998)



Avalon 30m 2016

Kurtiella coani (Scott 1998)



San Francisco Bay (Oakland Marina) 7m 2016

T. Phillips for SCAMIT 11APR2022

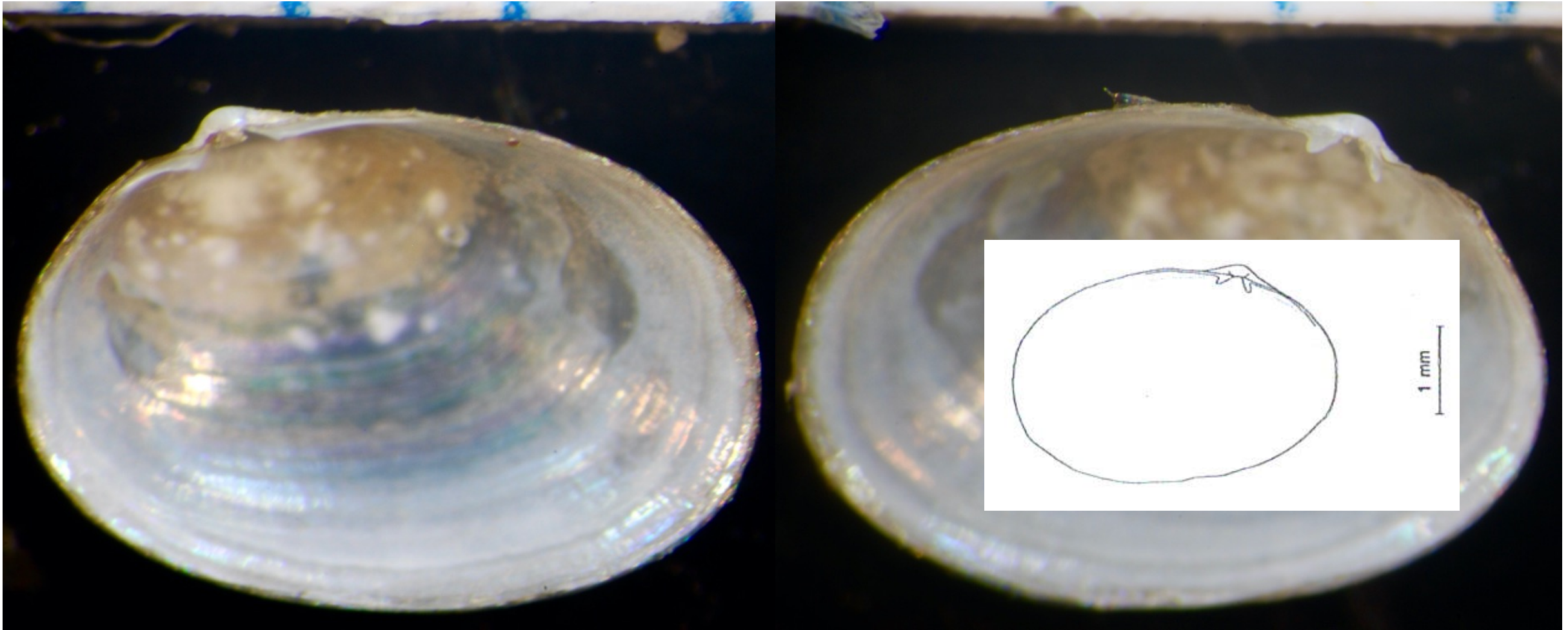
Kurtiella coani (Scott 1998)



CCSF SWOO33 [1.0 & 0.5mm] 20m 9/3/2020

Specimens courtesy of Heather Petersen CCSF

Kurtiella coani (Scott 1998)



left hinge

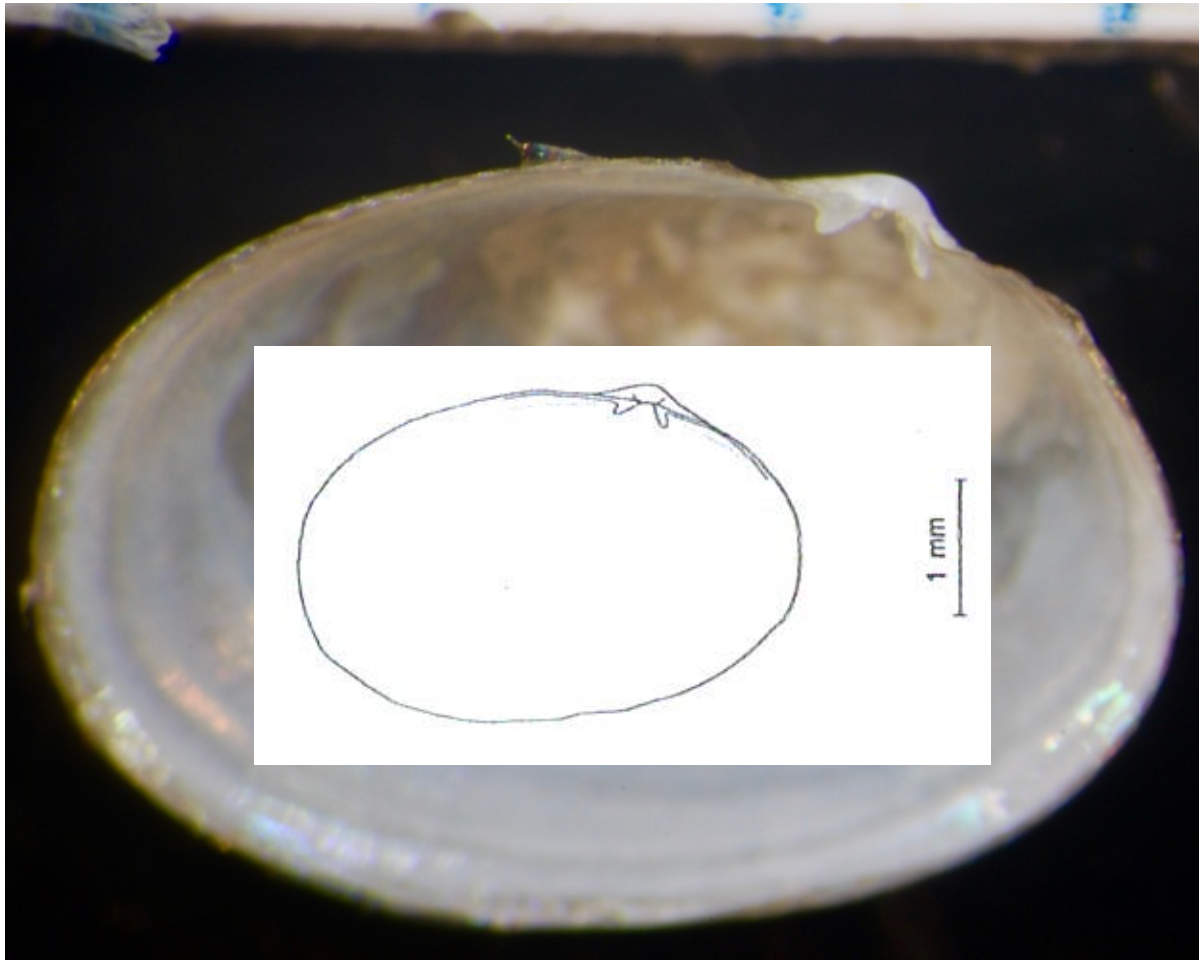
SONGS B3 1979

right hinge

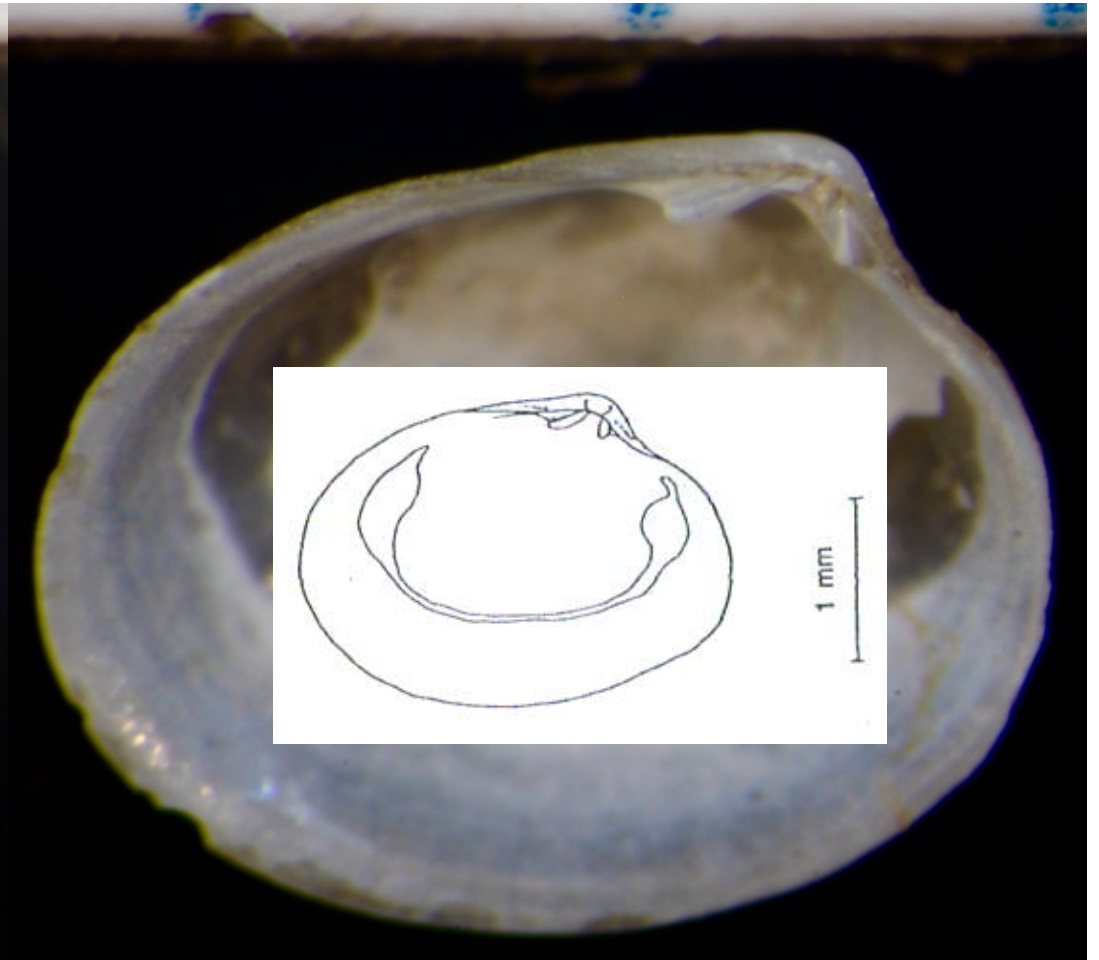
T. Phillips for SCAMIT 11APR2022

Specimen courtesy of Carol Paquette MBC

Kurtiella coani/*Kurtiella tumida*



SONGS B3 1979
right valve



Newport Bay 1m 1985
right valve

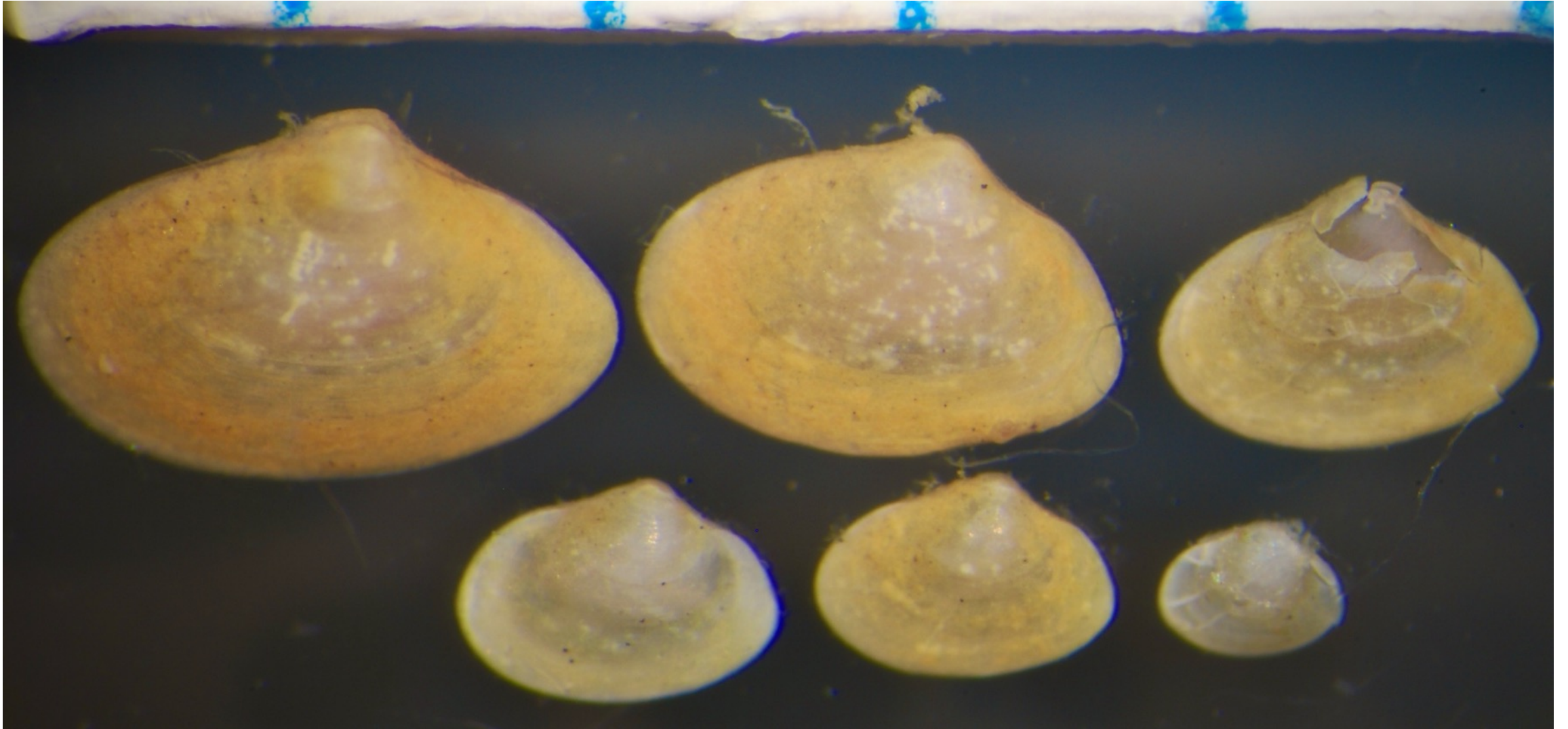
Kurtiella grippi (Dall 1912)



Monticeto 10m 2019

T. Phillips for SCAMIT 11APR2022

Kurttiella grippi (Dall 1912)



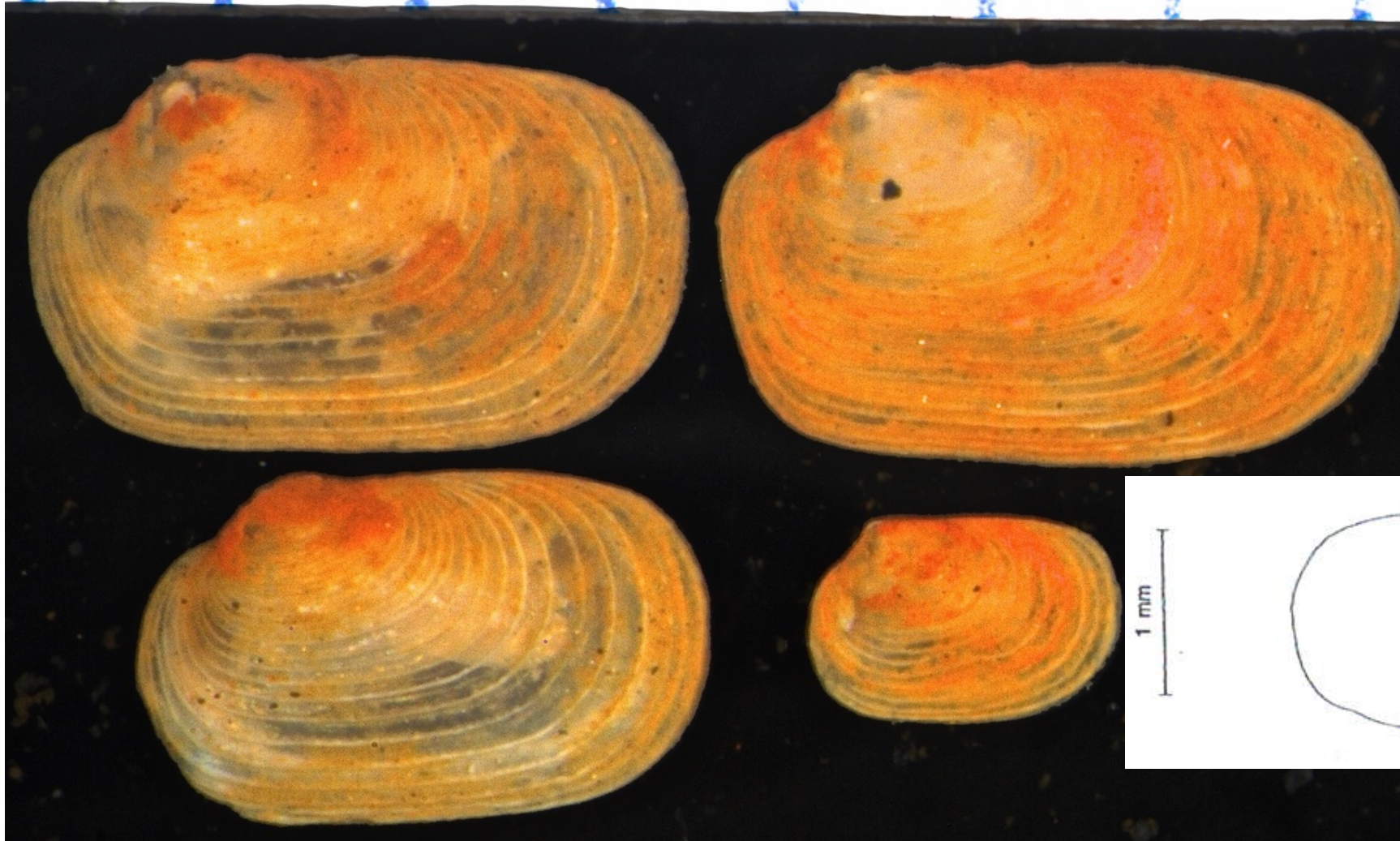
Chevron B8(4) 7m August 2019

T. Phillips for SCAMIT 11APR2022

Kurtiella grippi (Dall 1912)



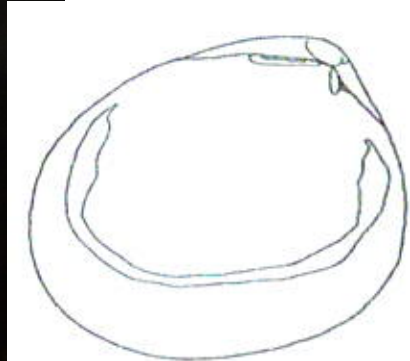
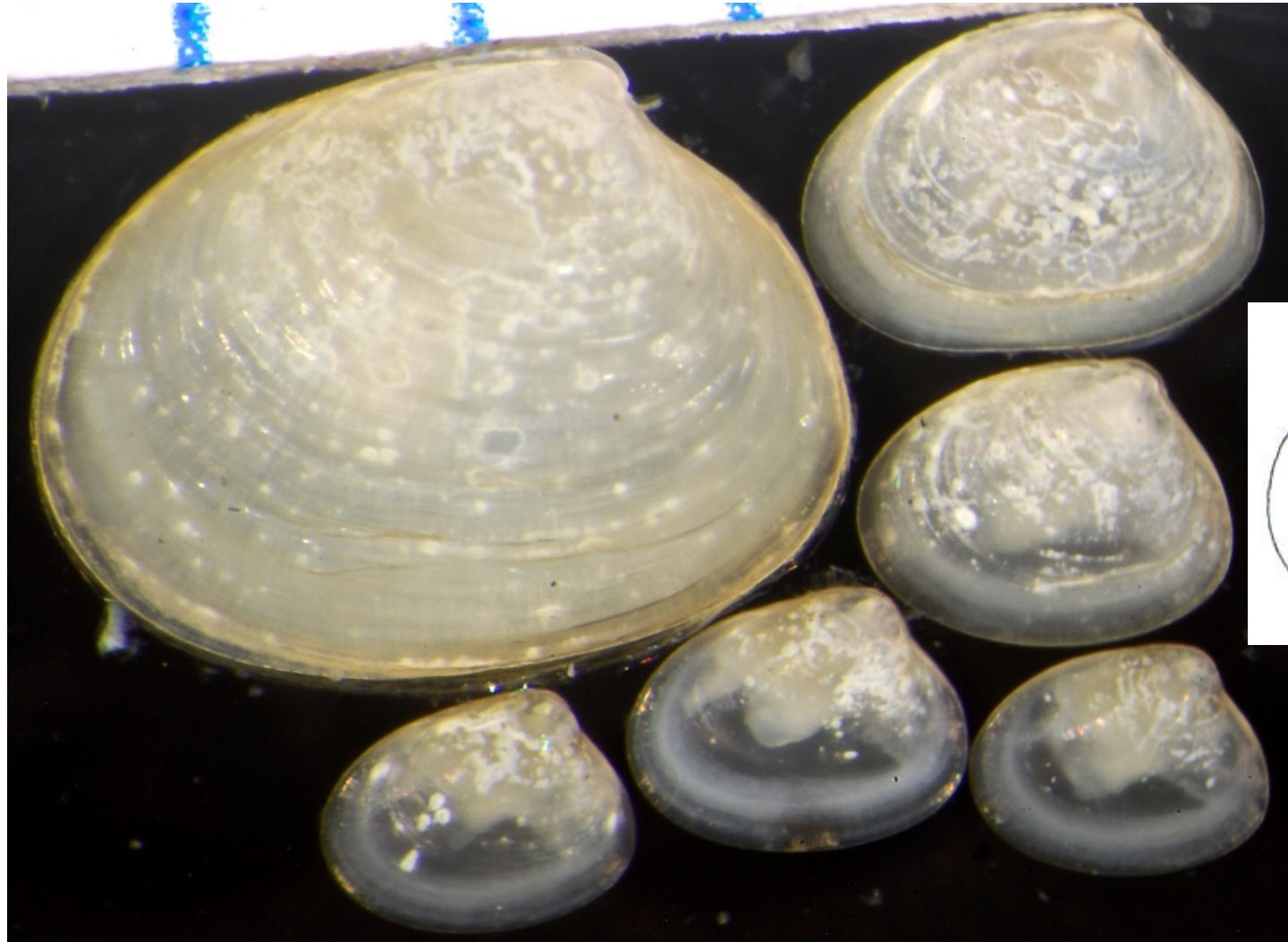
Kurtiella mortoni (Scott 1998)



Santa Monica Bay B5 46m 1996

T. Phillips for SCAMIT 11APR2022

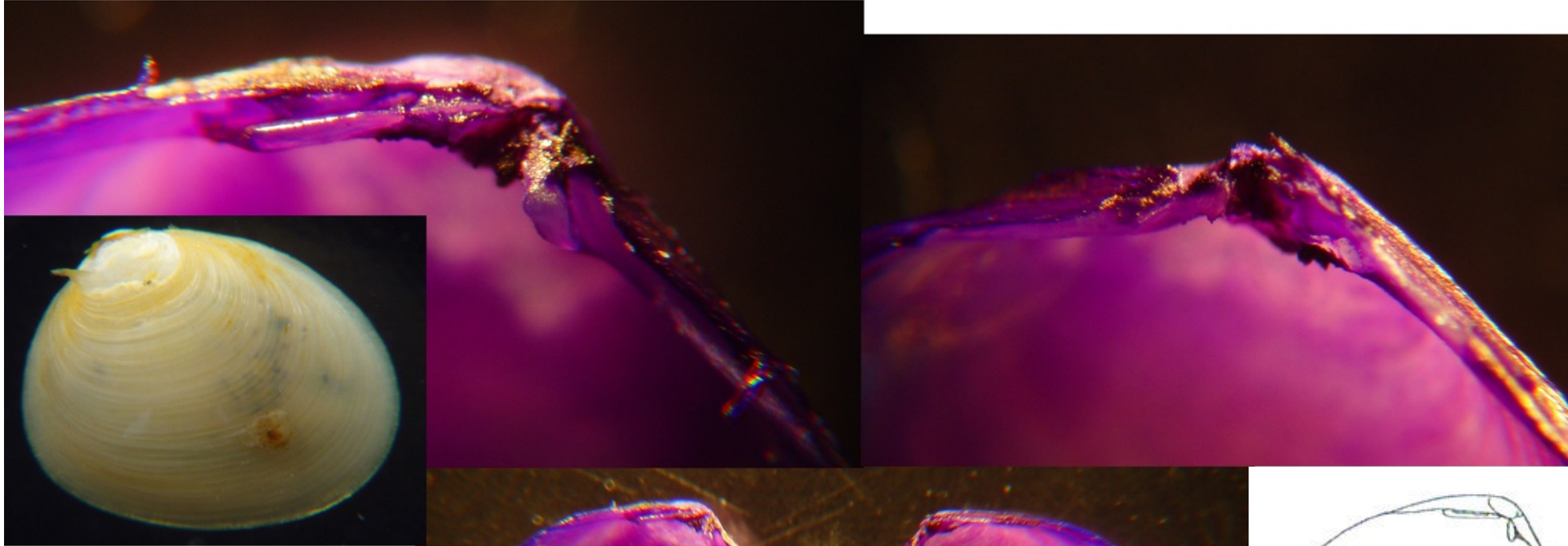
Kurtiella pedroana (Dall 1899)



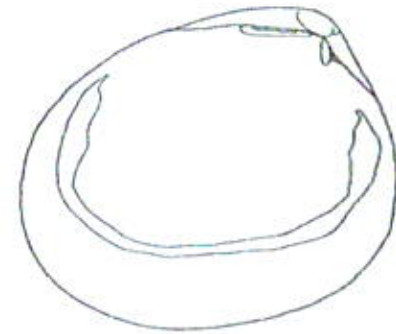
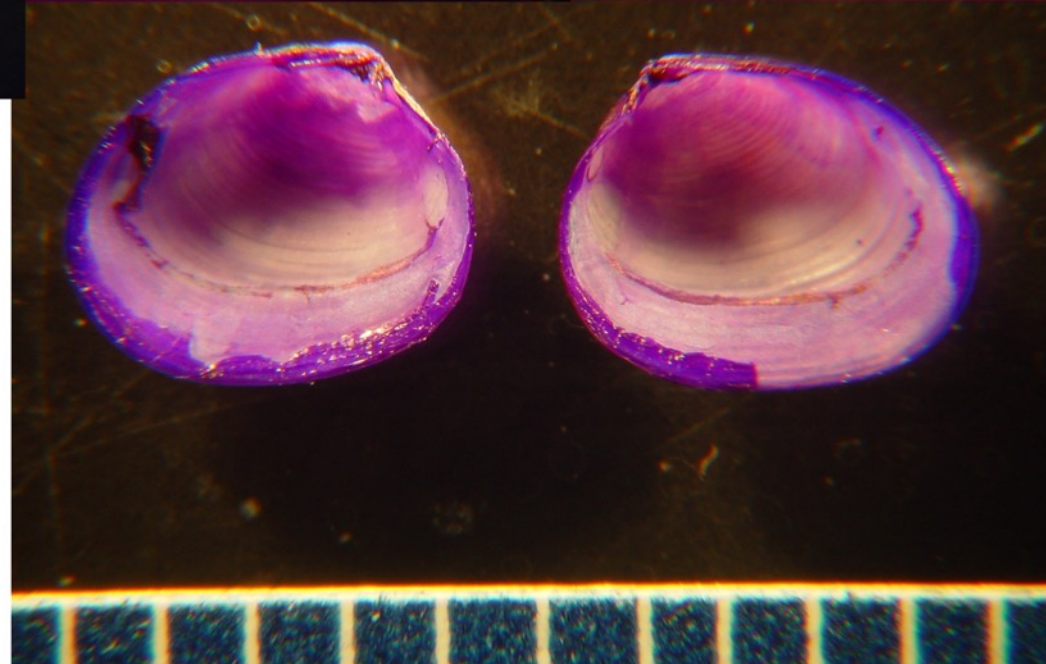
San Luis Obispo 10m 2016 (found on Blepharipoda)

T. Phillips for SCAMIT 11APR2022

Kurtiella pedroana (Dall 1899)



Station I4(1)
5JAN04
19 m



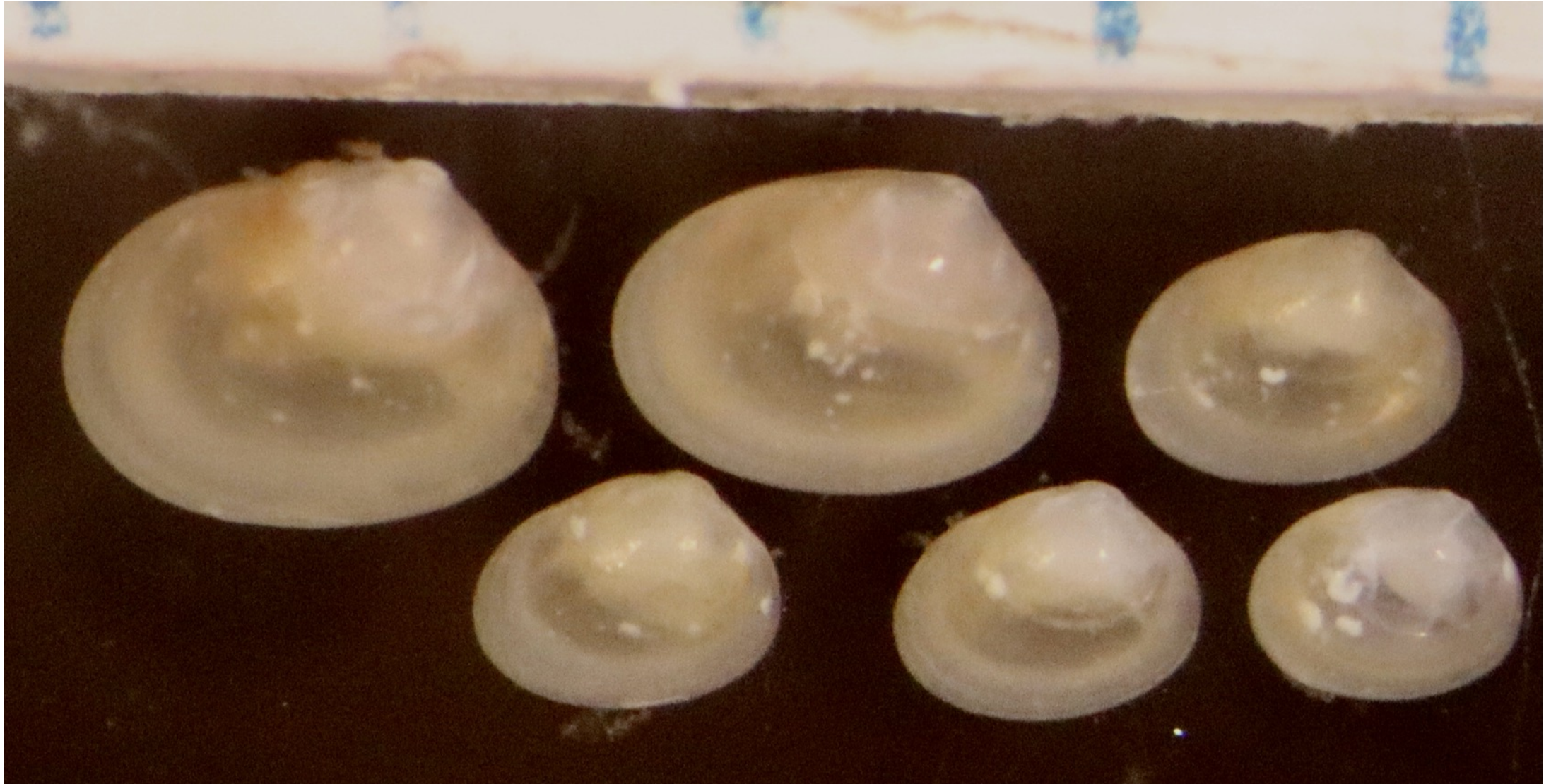
Kurttiella tumida (Carpenter 1864)



Photo courtesy of Kelvin Barwick

T. Phillips for SCAMIT 11APR2022

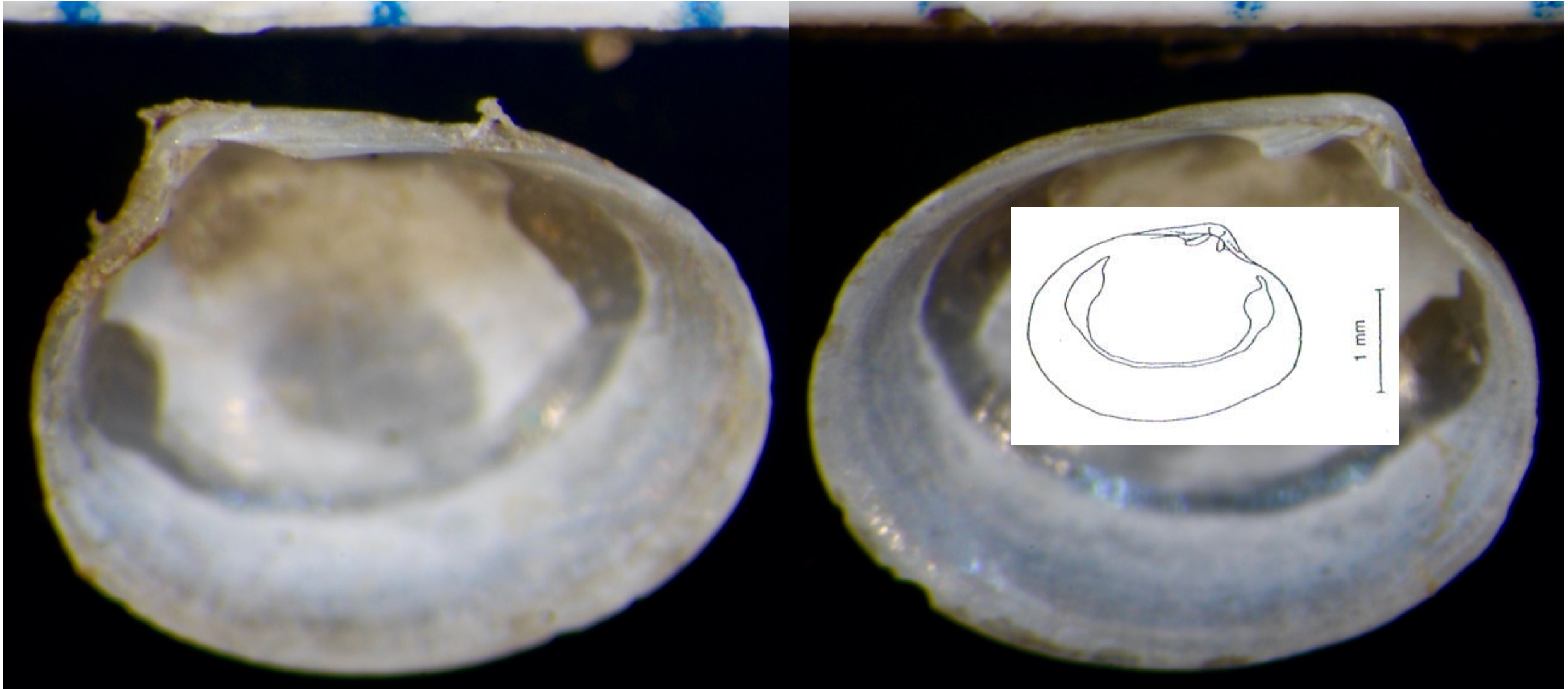
Kurtiella tumida (Carpenter 1864)



WEMAP CA03 3008 2002

T. Phillips for SCAMIT 11APR2022

Kurtiella tumida (Carpenter 1864)



Newport Bay (Balboa Island) 1m 1985

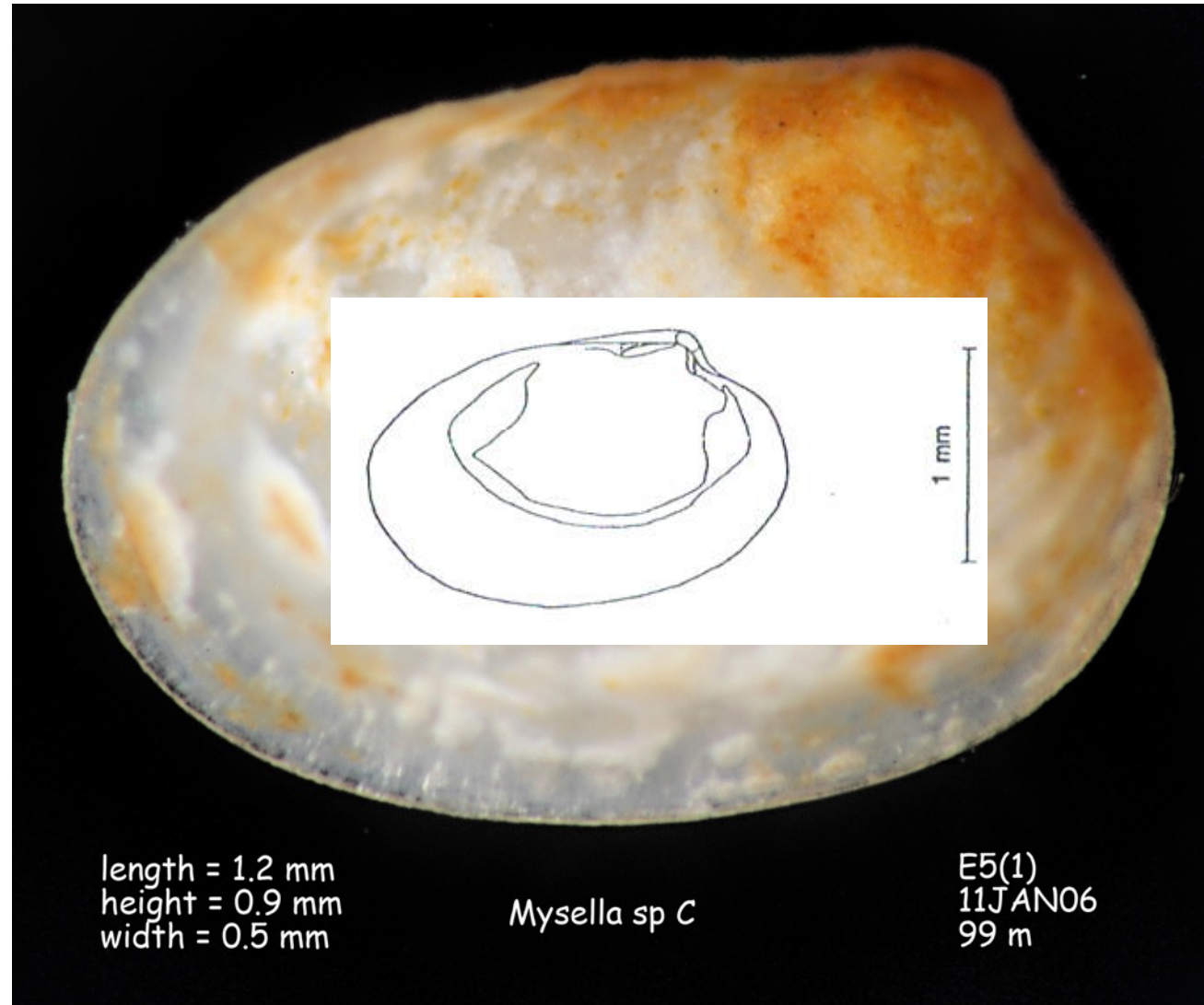
left valve

right valve

T. Phillips for SCAMIT 11APR2022

Specimen courtesy of Carol Paquette MBC

Kurtiella sp C (SCAMIT 1988)



length = 1.2 mm
height = 0.9 mm
width = 0.5 mm

Mysella sp C

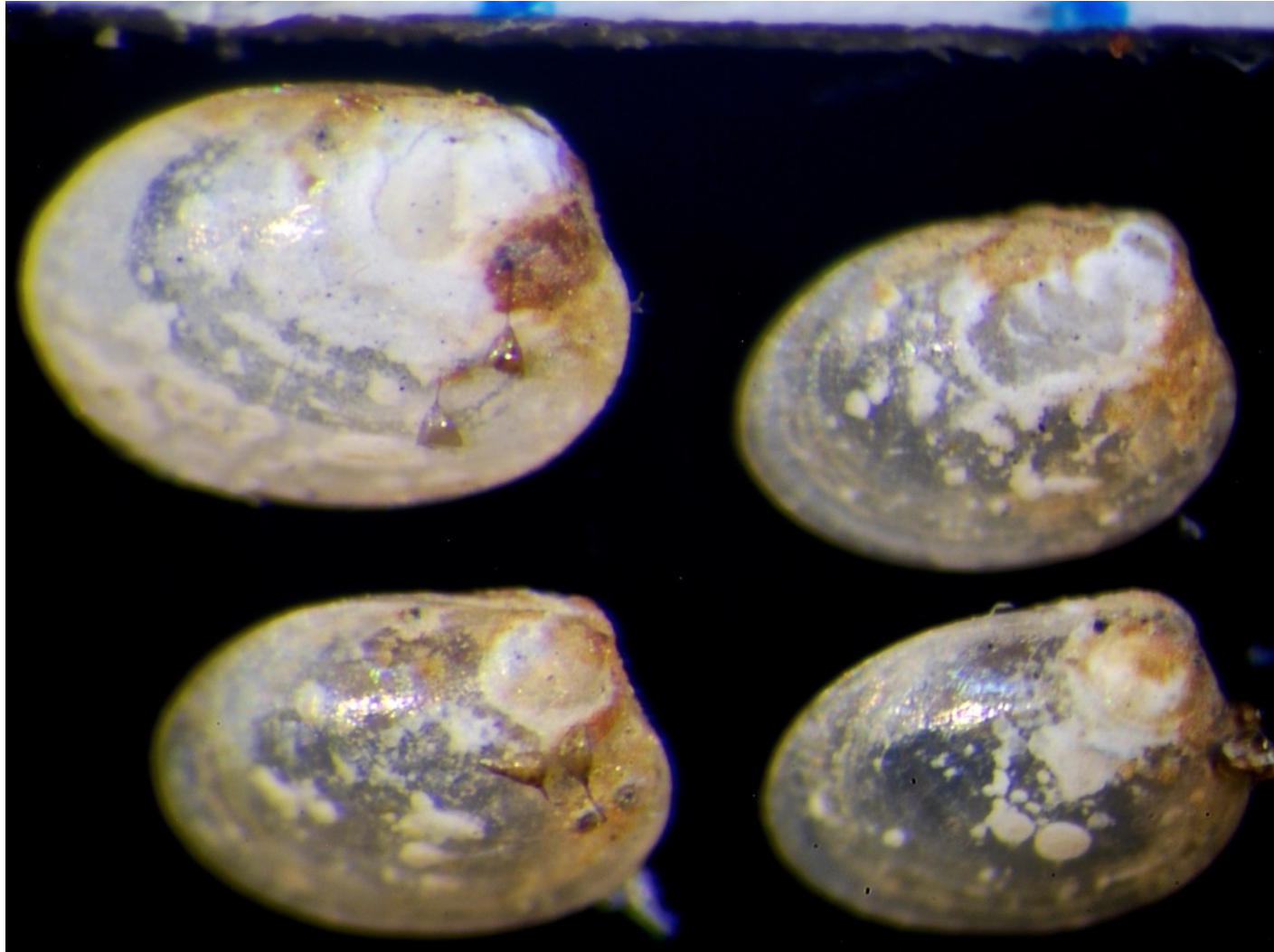
E5(1)
11JAN06
99 m

OCSD E5(1) 99m 2006

T. Phillips for SCAMIT 11APR2022

Photo courtesy of Kelvin Barwick

Kurtiella sp C (SCAMIT 1988)



Oxnard 5A 60m 1974

Specimens courtesy of Carol Paquette MBC

T. Phillips for SCAMIT 11APR2022

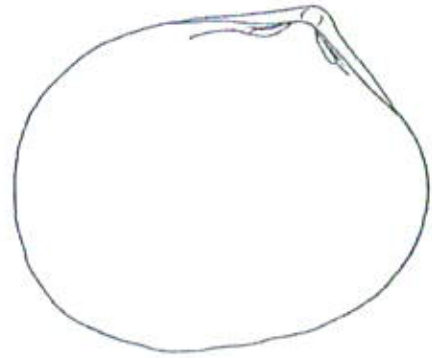
Kurtiella sp D (SCAMIT 1988)



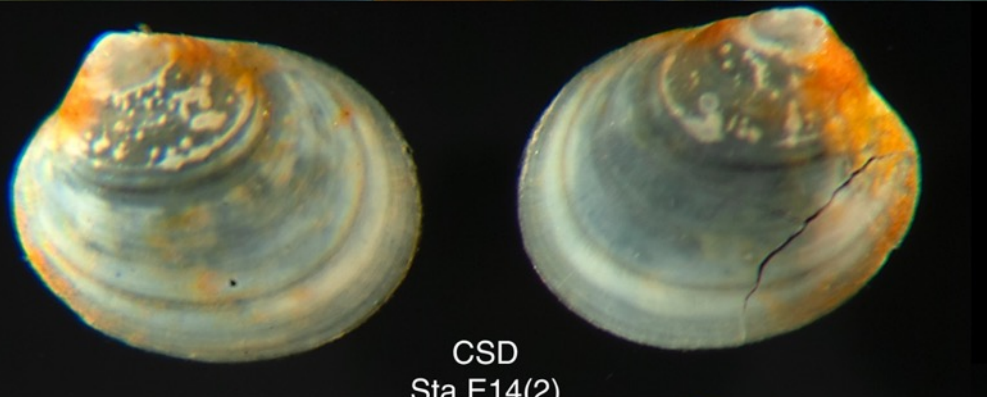
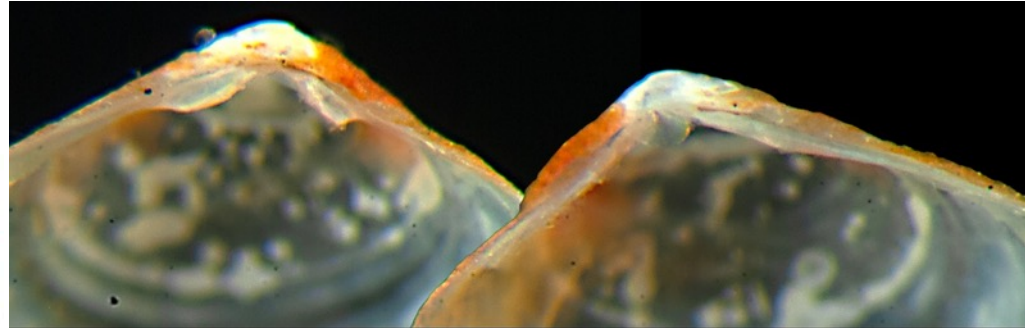
Photo courtesy of Kelvin Barwick

T. Phillips for SCAMIT 11APR2022

Kurtiella sp D (SCAMIT 1988)



1 mm



CSD
Sta. E14(2)
9JUL1997
319 ft

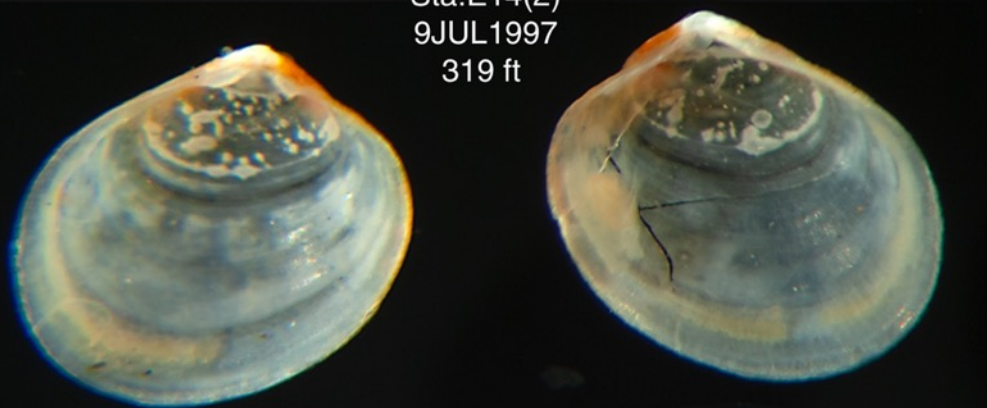
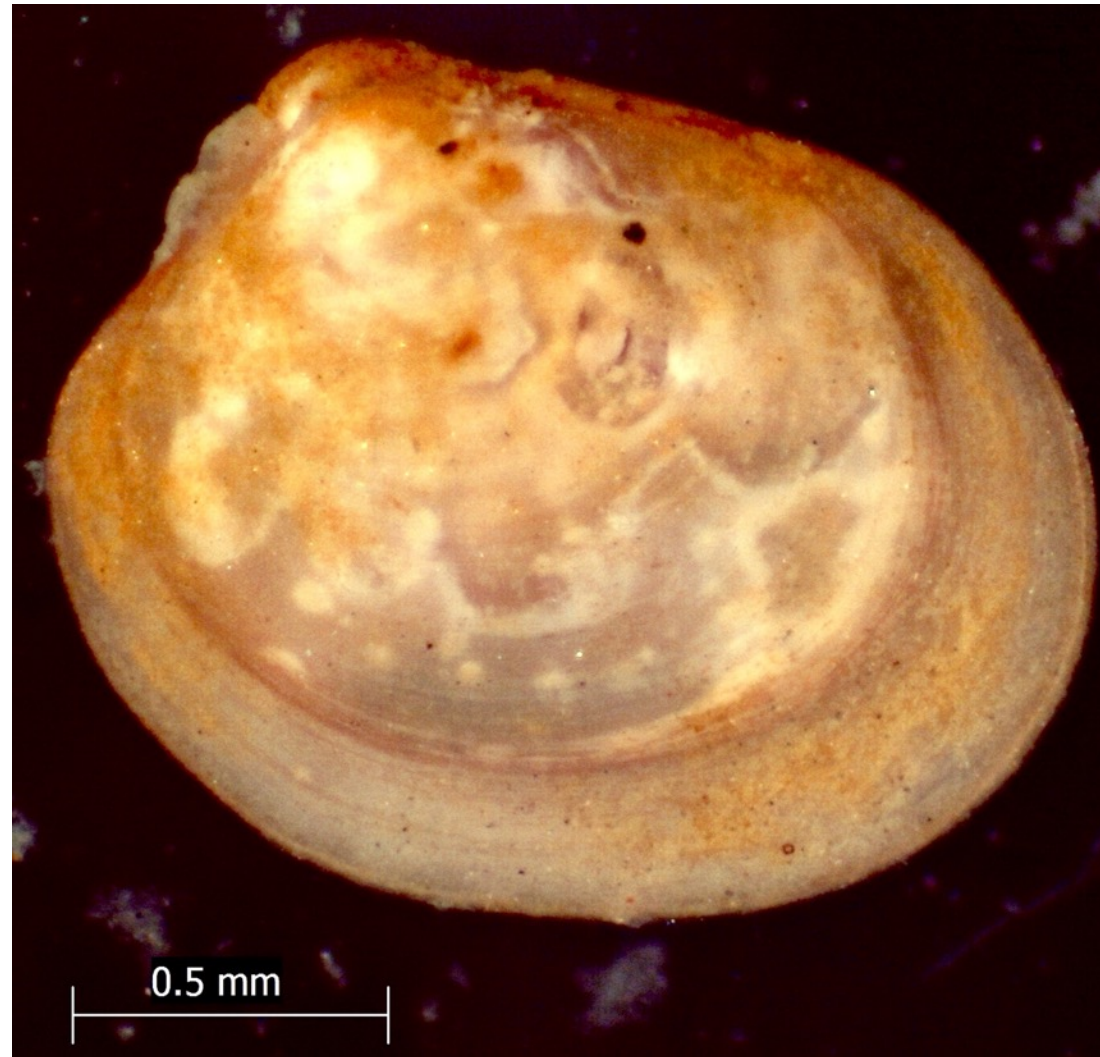


Photo courtesy of Kelvin Barwick

T. Phillips for SCAMIT 11APR2022

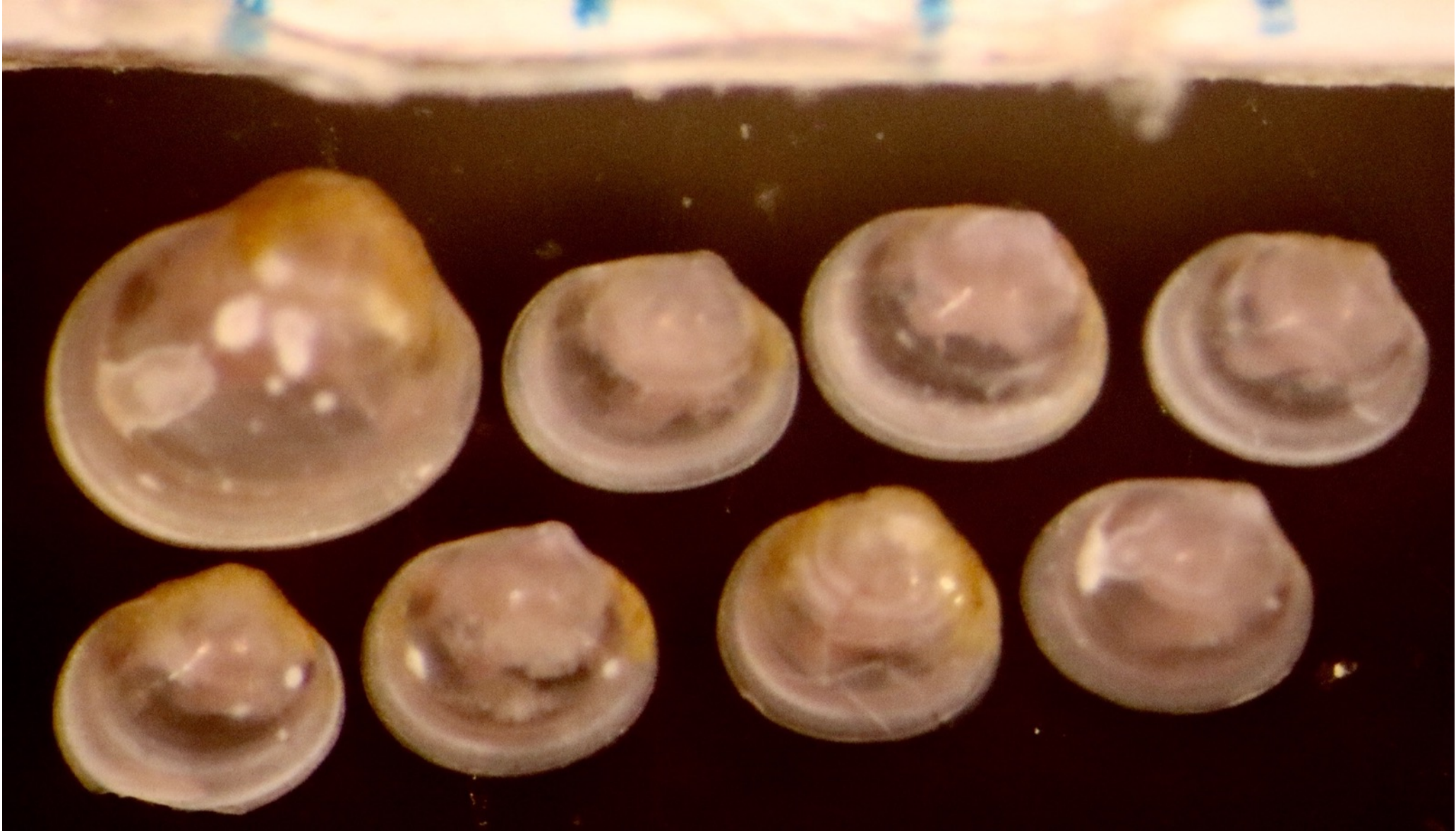
Kurtiella sp D (SCAMIT 1988)



Puget Sound 15m 2016

T. Phillips for SCAMIT 11APR2022

Kurtiella sp D (SCAMIT 1988)



WEMAP CA03 0371 (0.5mm) 2002

T. Phillips for SCAMIT 11APR2022

Specimens courtesy of Linda Kunhz

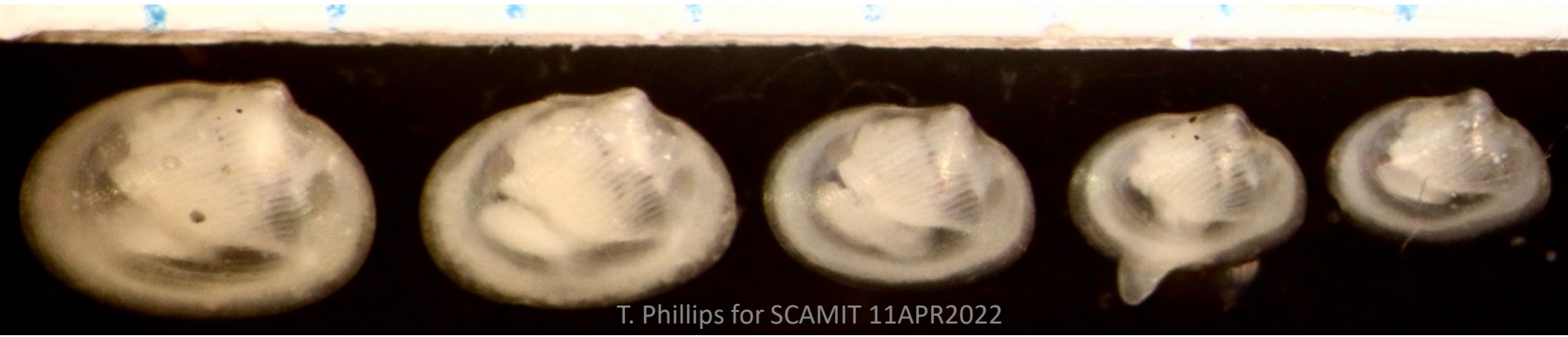
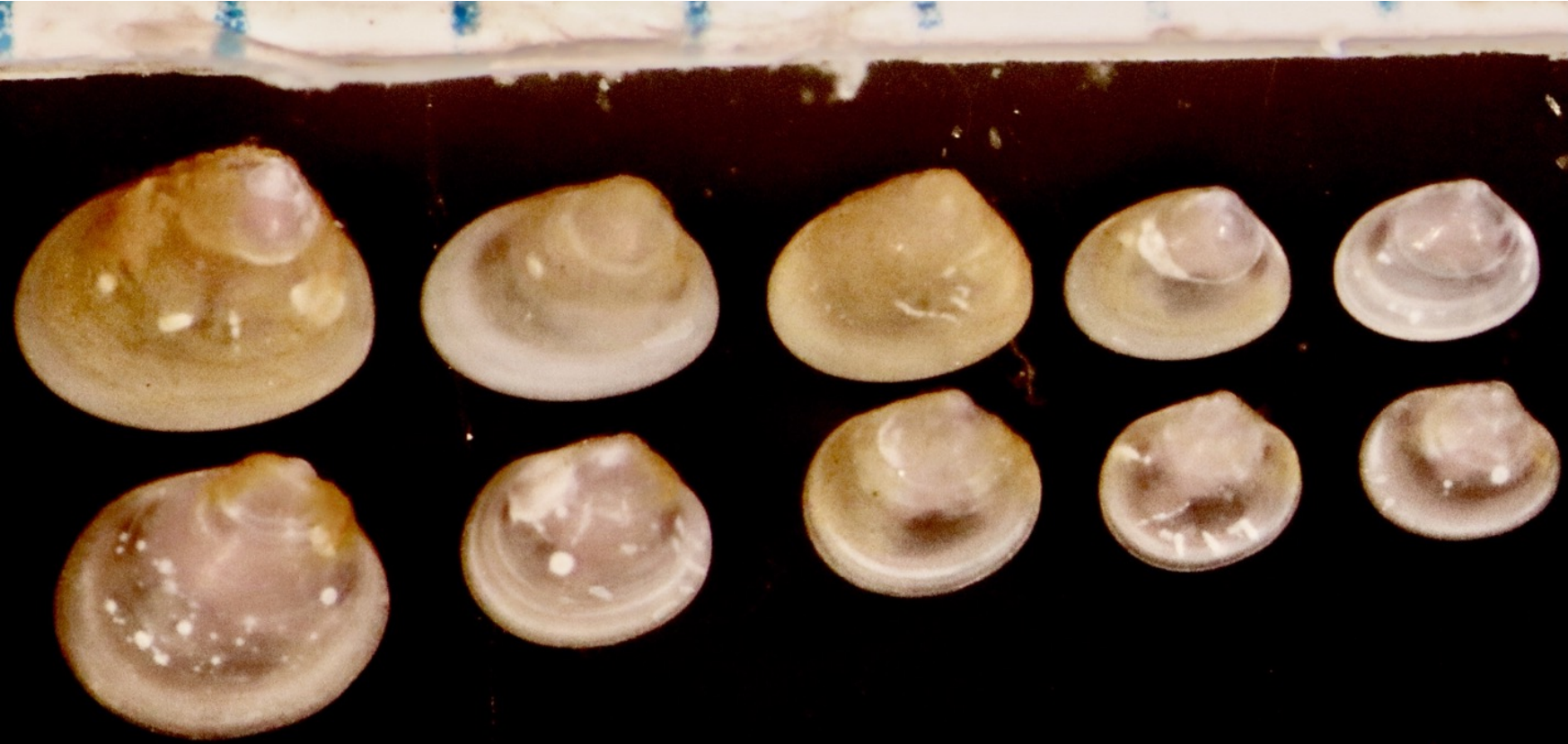
Kurtiella tumida/*Kurtiella* sp D

Puget Sound 15m 2016



T. Phillips for SCAMIT 11APR2022

Kurtiella tumida/*Kurtiella* sp D/*Kurtiella coani* (0.5mm)



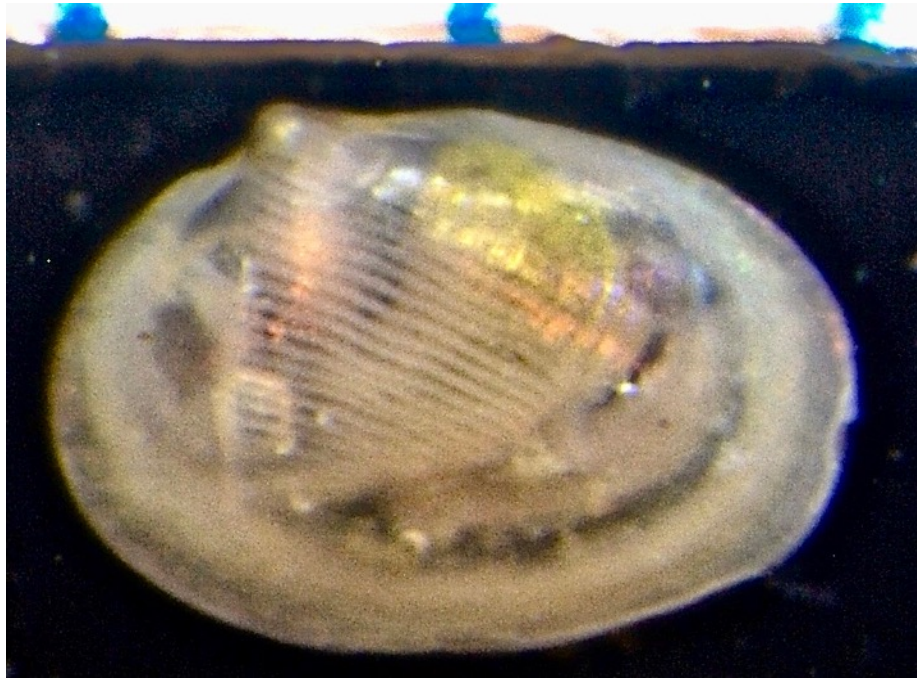
T. Phillips for SCAMIT 11APR2022

Kurtiella tumida (above)

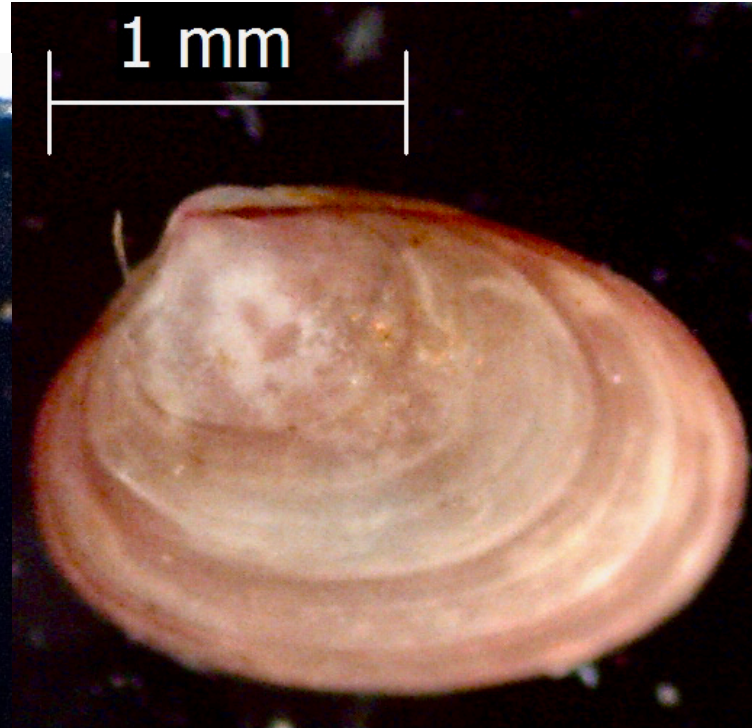
Kurtiella sp D (middle)

Kurtiella coani (below)

Kurtiella coani/Kurtiella tumida
/Kurtiella sp D



B'18 Alamitos Bay 2m

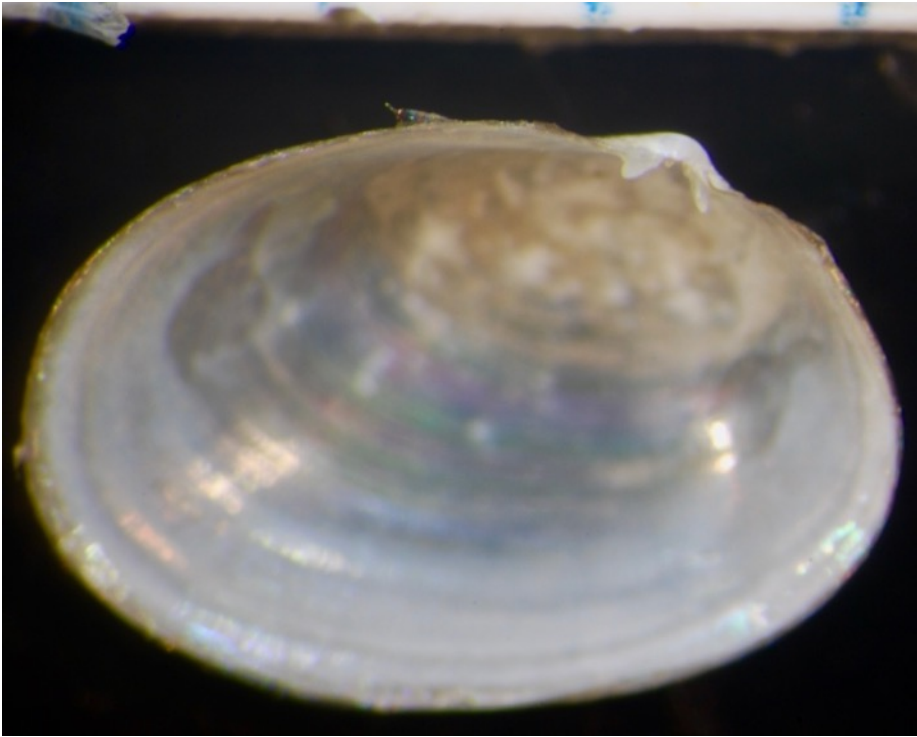


Puget Sound 15 m 2016

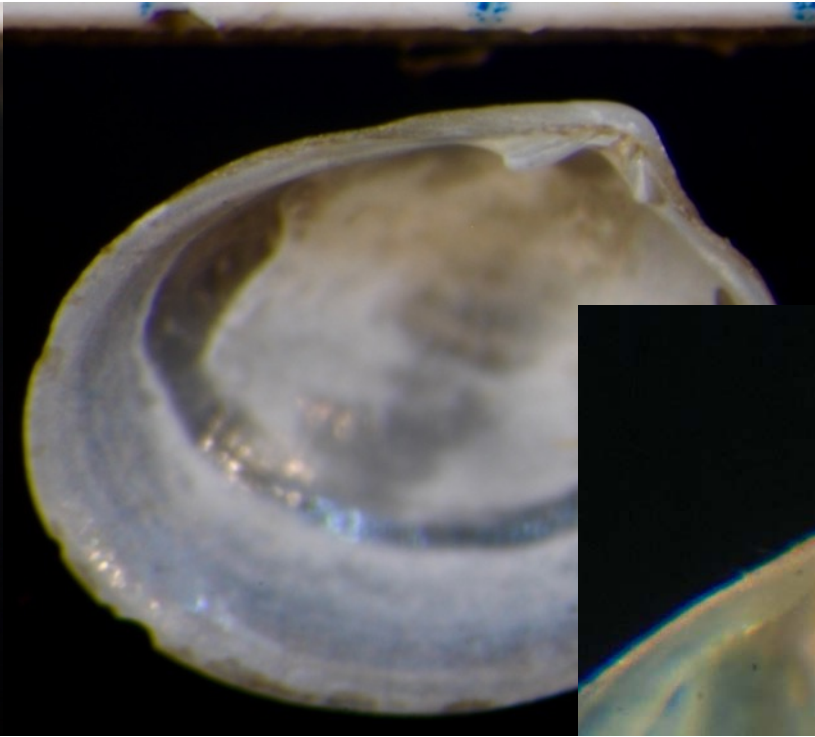


Puget Sound 15m 2016

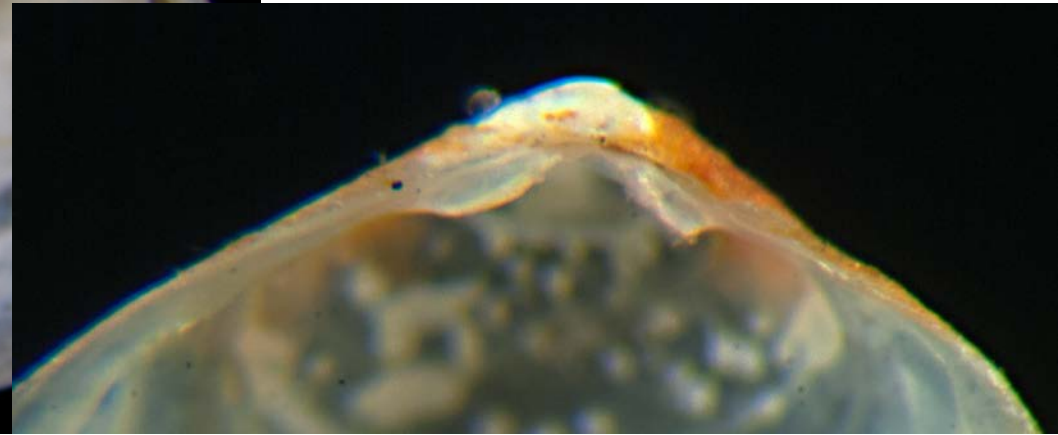
Kurttiella coani/Kurttiella tumida
/Kurttiella sp D



SONGS B3 1979



Newport Bay 1m 1985



CSD E14(2) 106m 1997

Kurtiella sp LA1 (Power 2004)

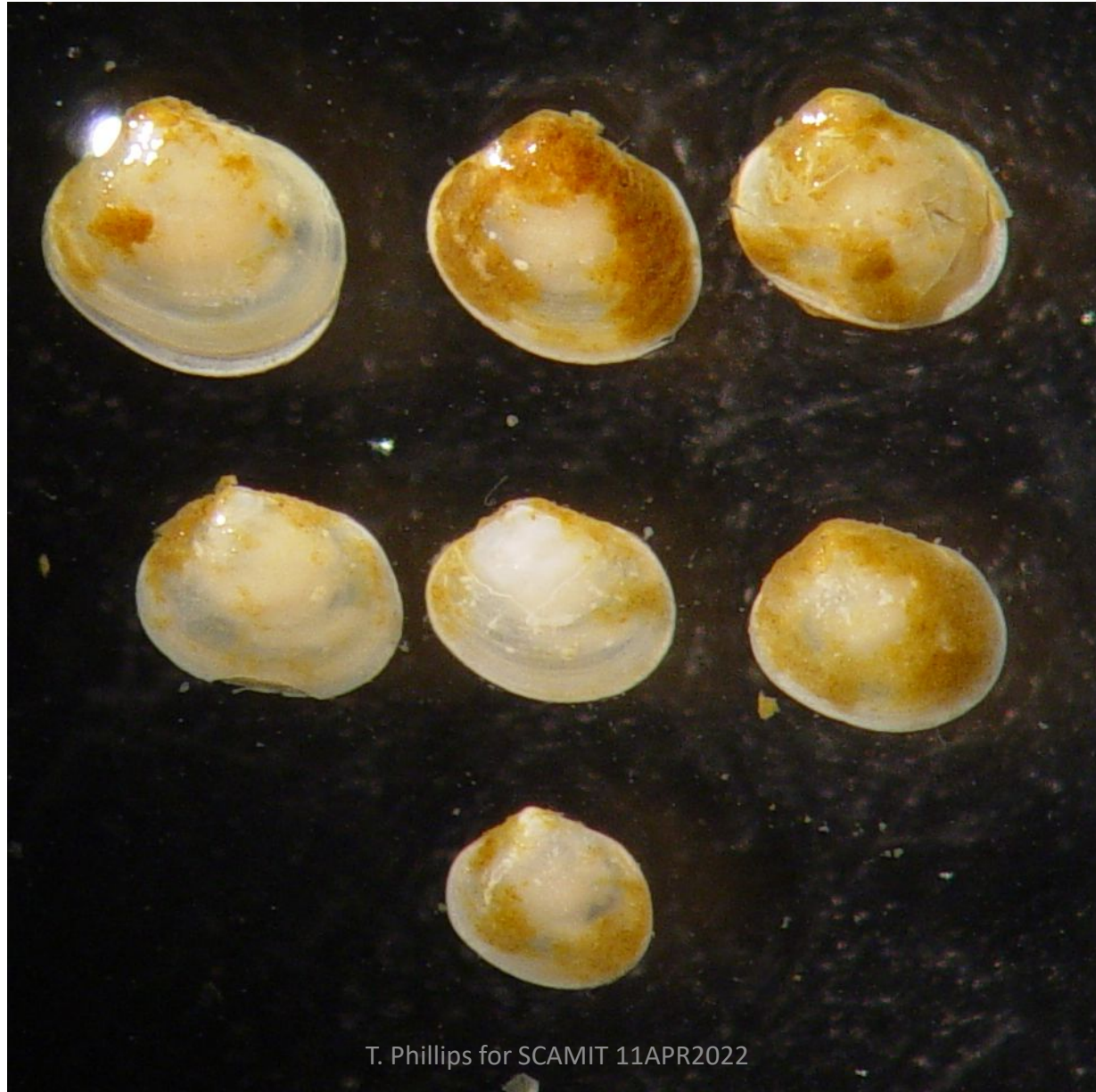
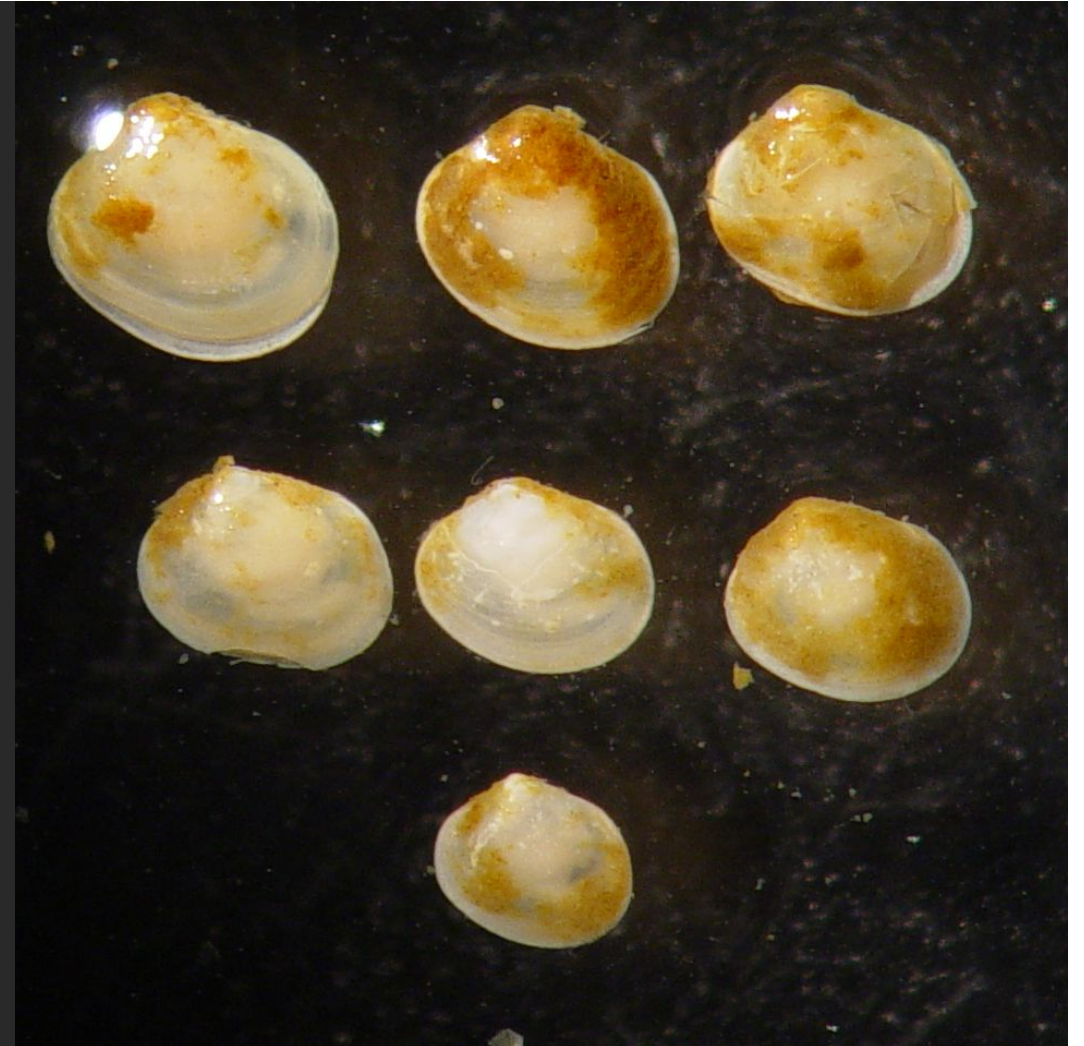


Photo courtesy of Don Cadien

Kurtiella sp D (SCAMIT 1988)/
Kurtiella LA1 (Power 2004)

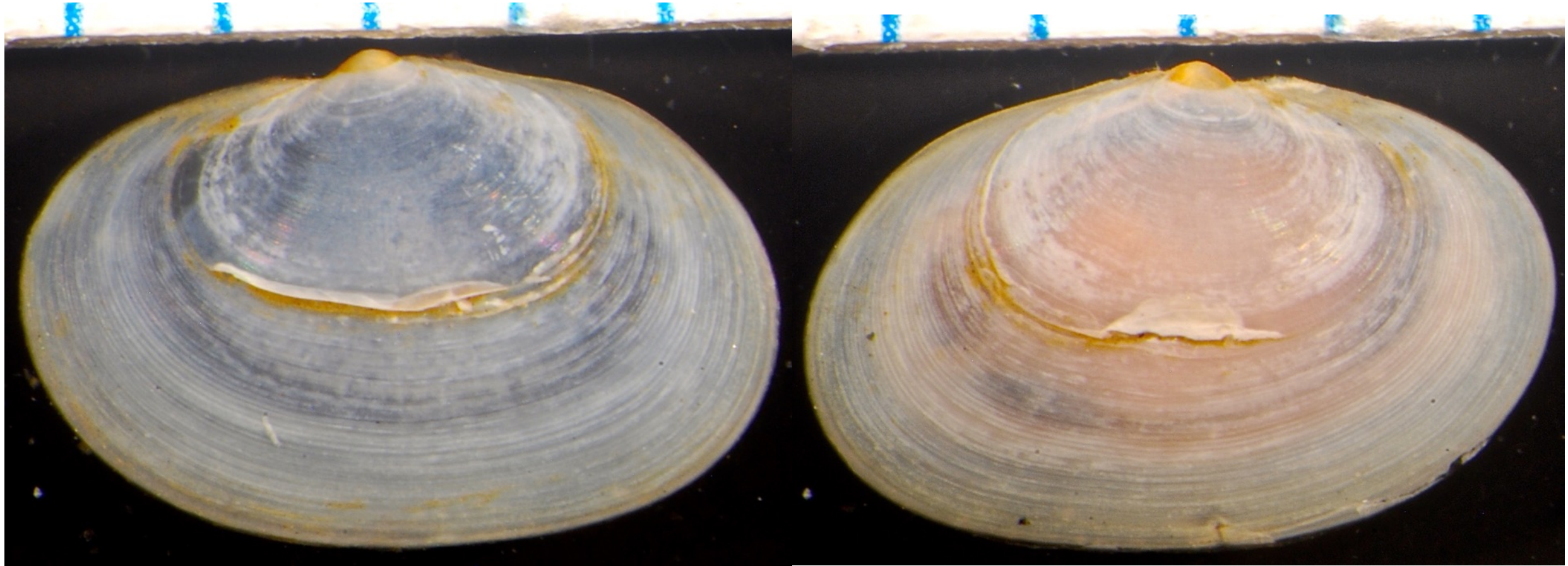


Kurtiella sp D (SCAMIT 1988)



Kurtiella sp LA1 (Power 2004)

Neaeromya californica (Dall 1899)



left valve

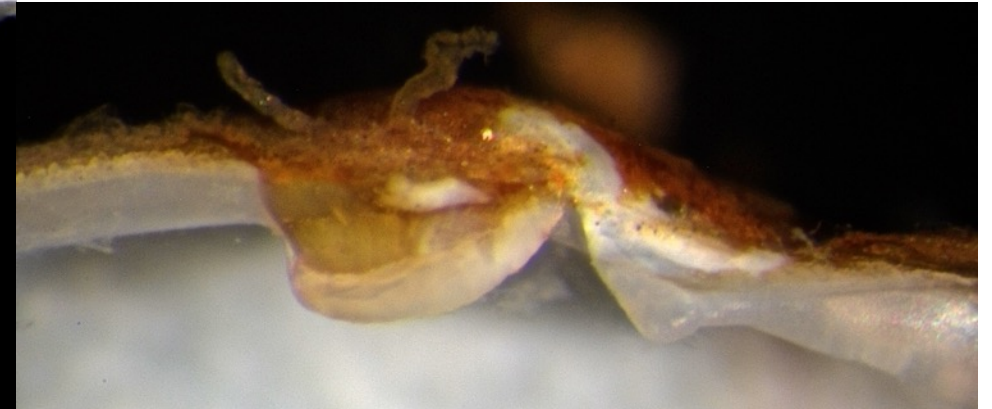
Goleta B1 30m 1993

right valve

Neaeromya californica (Dall 1899)



Encina 45m 1990

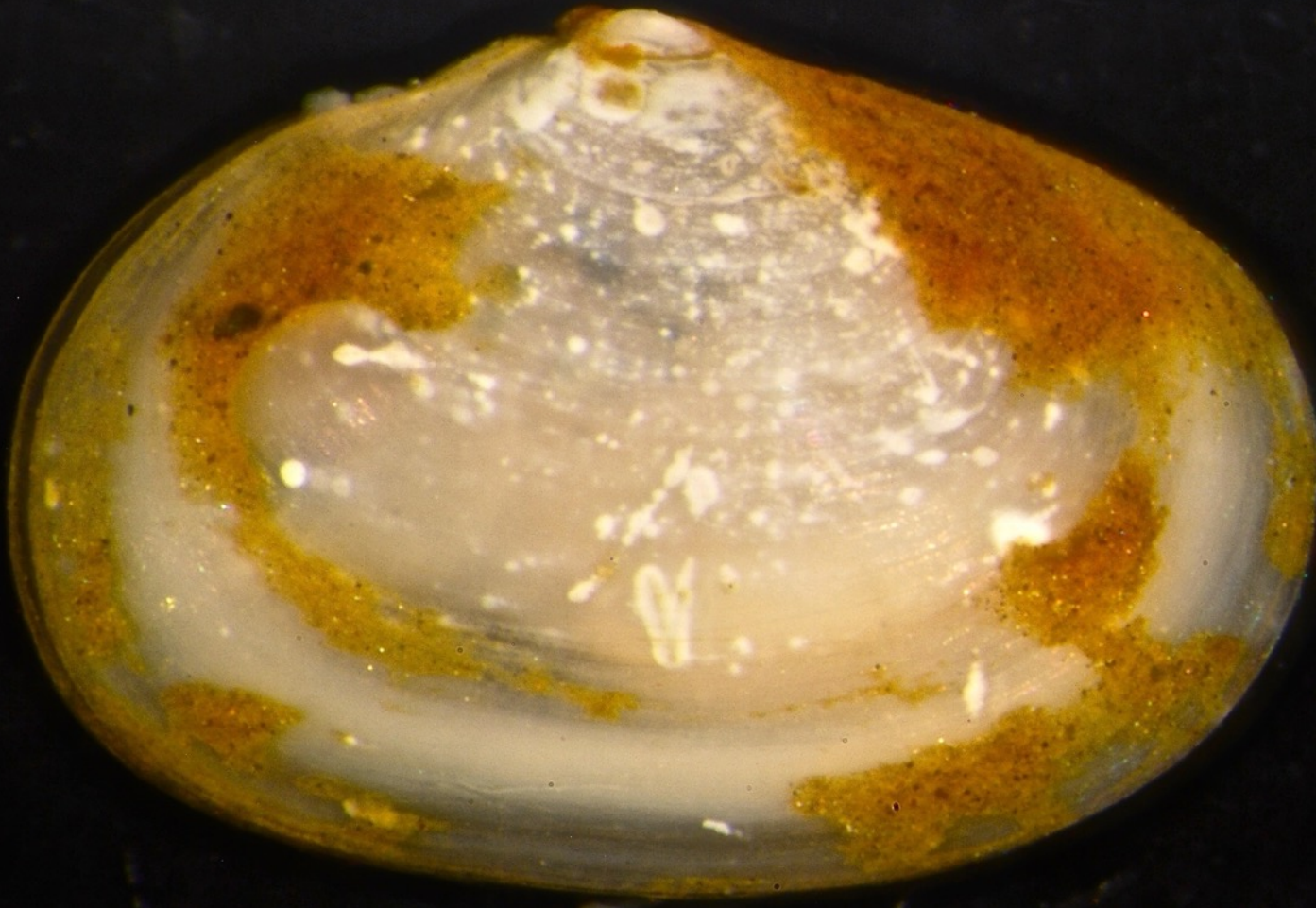


left hinge (above), right hinge (below)

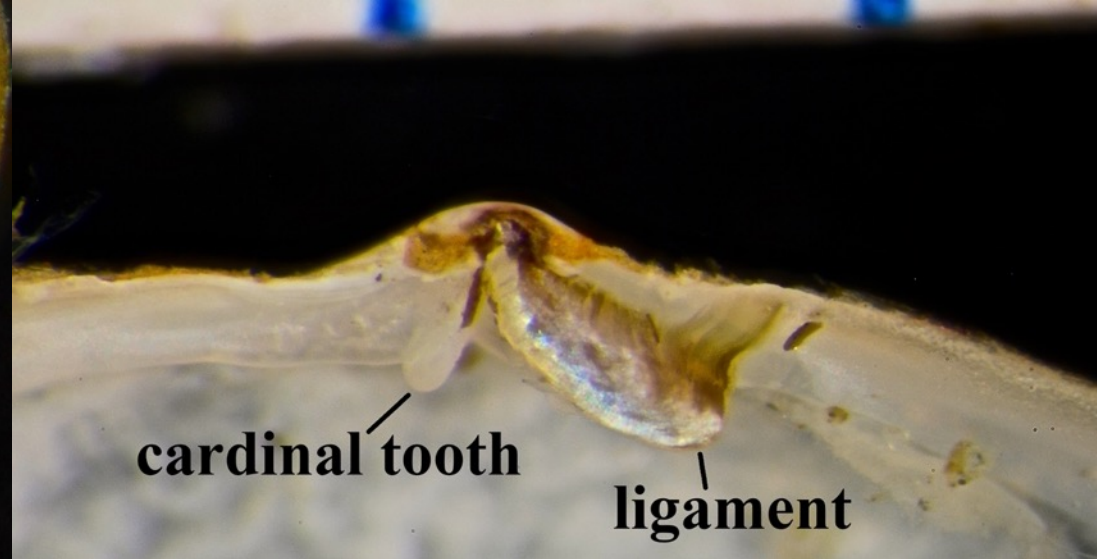
T. Phillips for SCAMIT 11APR2022

Specimen courtesy of John Ljubenkov Voucher Collection

Neaeromya compressa (Dall 1899)



OCSD C(1) 50m 2014



left hinge above, right hinge below

Neaeromya compressa (Dall 1899)

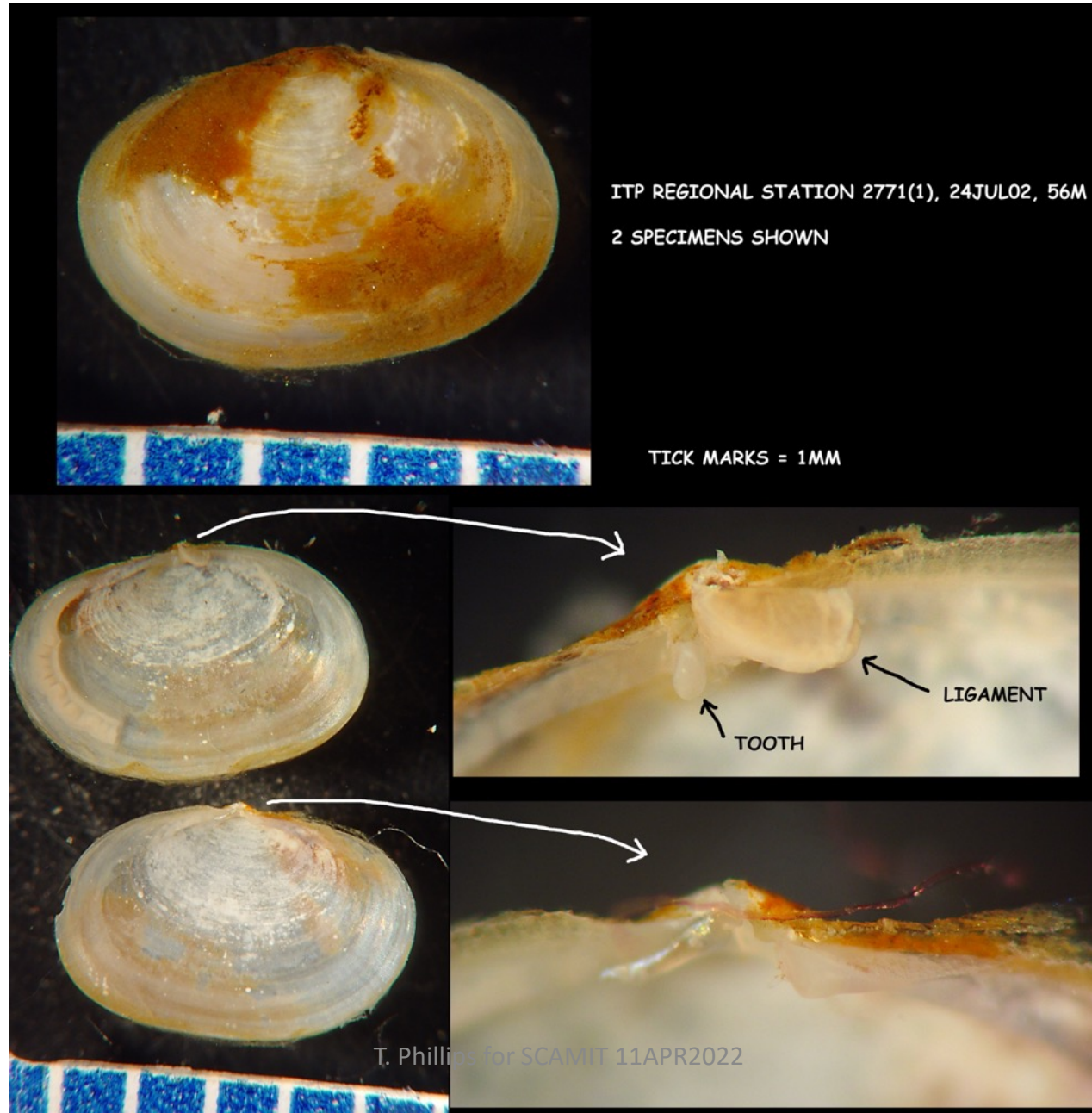
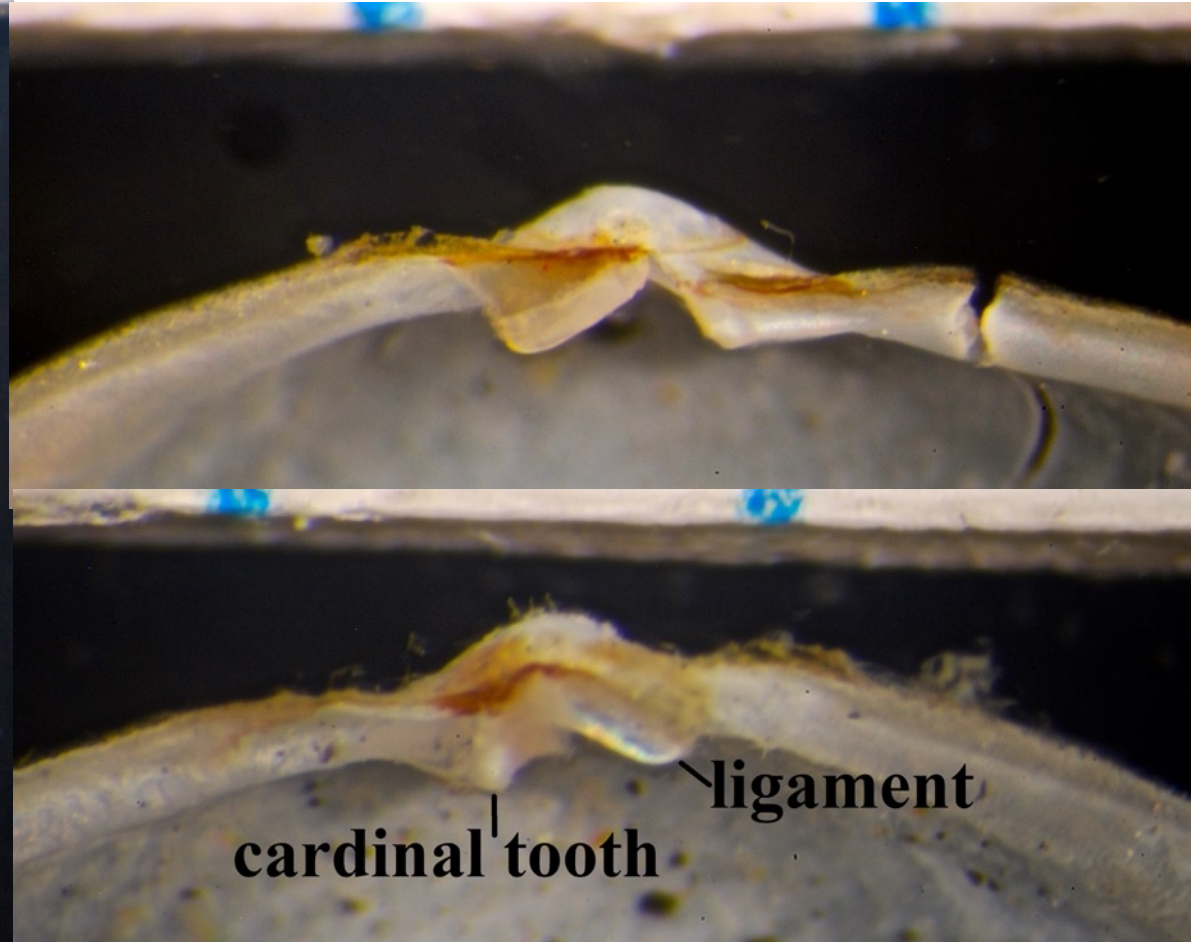


Photo courtesy of
Kelvin Barwich

Neaeromya rugifera (Carpenter 1864)



Haynes Power Plant 5m 1988
Specimen off *Aphrodita refulgens*



left hinge above

right hinge below

Neaeromya rugifera (Carpenter 1864)



DWP Haynes 5m 1988 (off *Aphrodita refulgens*)

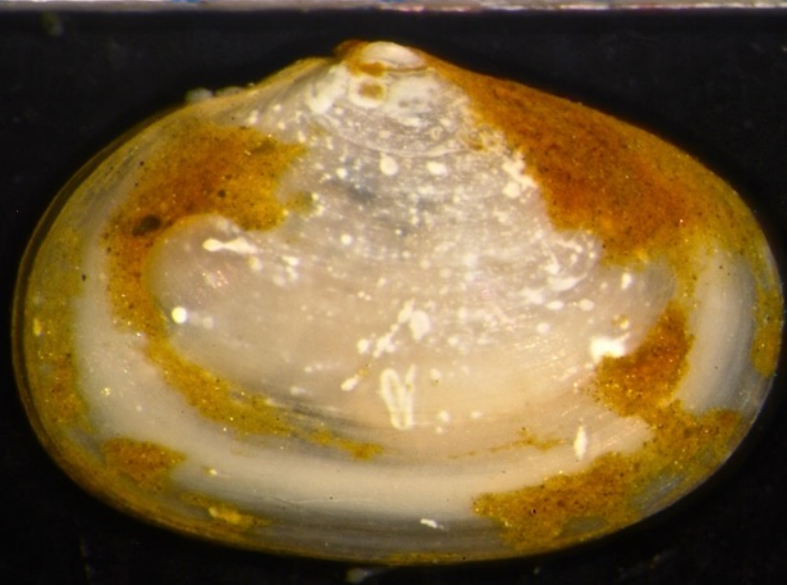
Specimens courtesy of Carol Paquette MBC

T. Phillips for SCAMIT 11APR2022

Neaeromya spp



Neaeromya californica
Encina 45m 1990

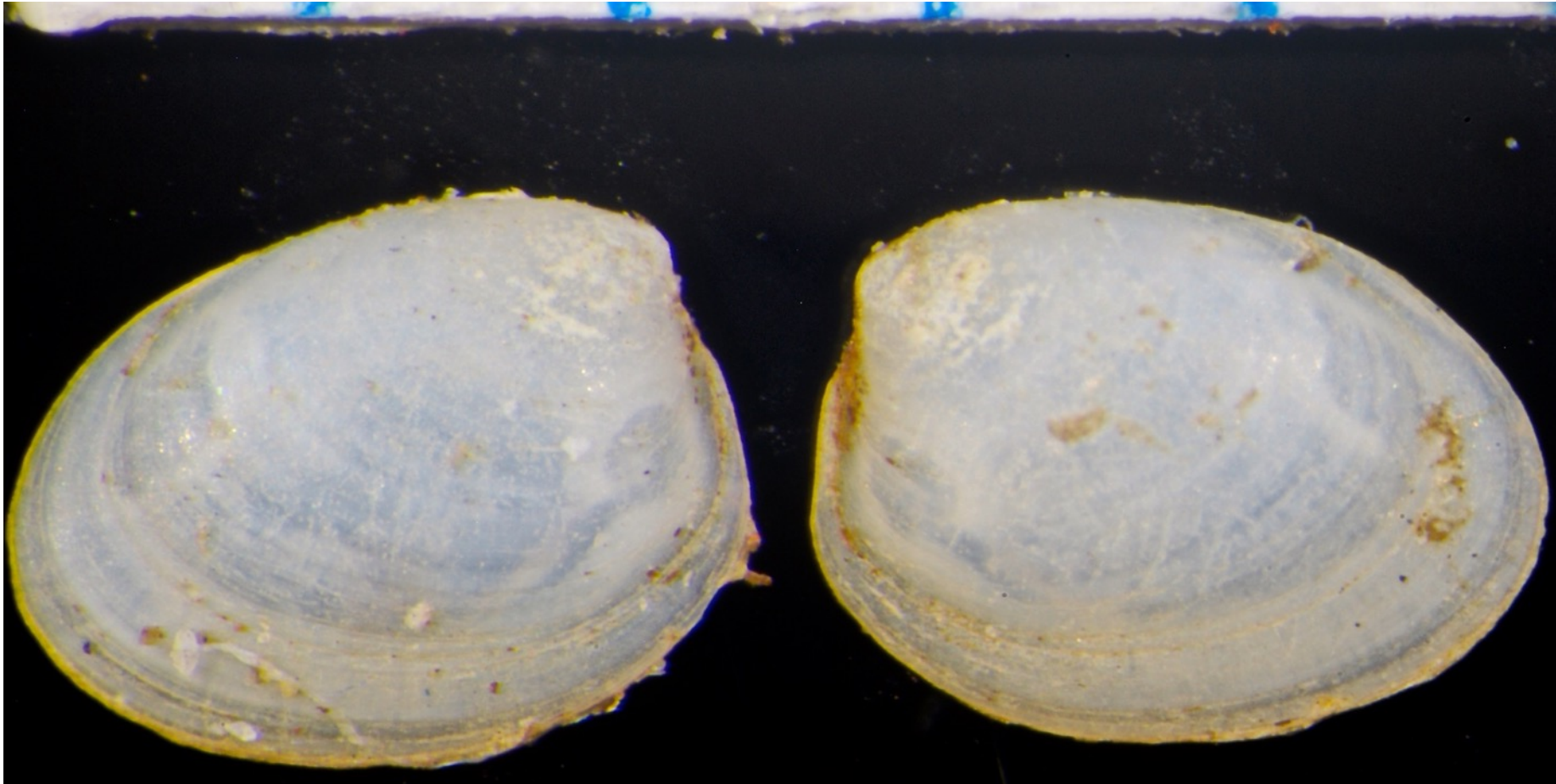


Neaeromya compressa
OCSD C(1) 50m 2014



Neaeromya rugifera
DWP Haynes 5m 1988

Pristes oblongus Carpenter 1864

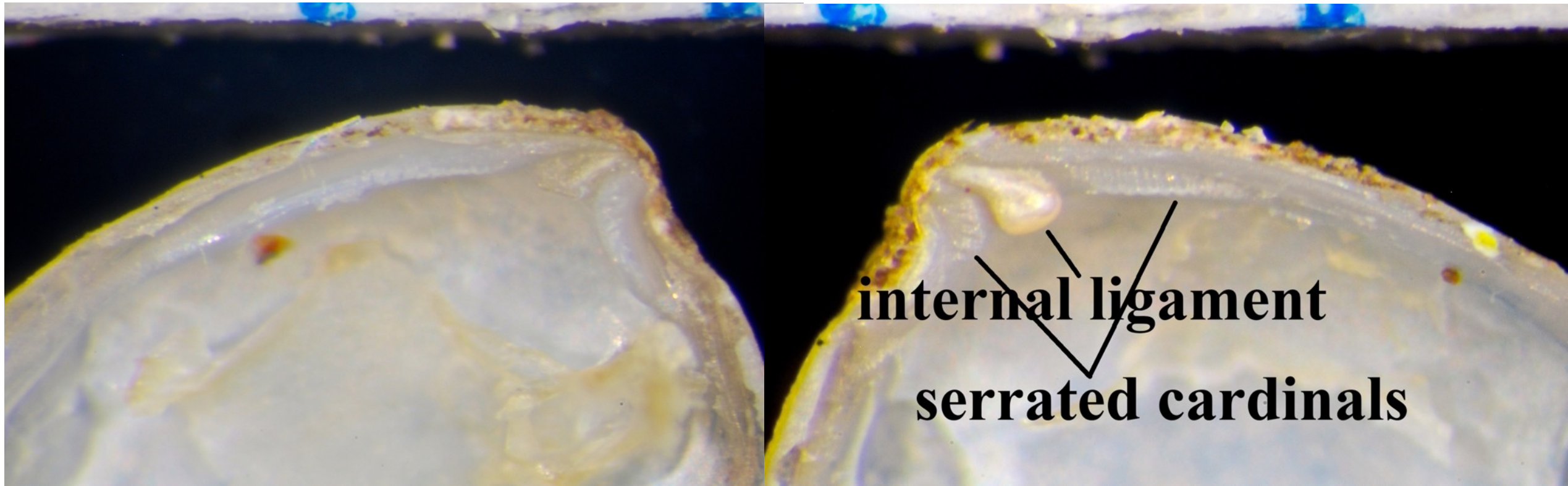


Point Loma Intertidal 1976 (found on *Stenoplax conspicua*)

T. Phillips for SCAMIT 11APR2022

Specimen courtesy of Carol Paquette MBC

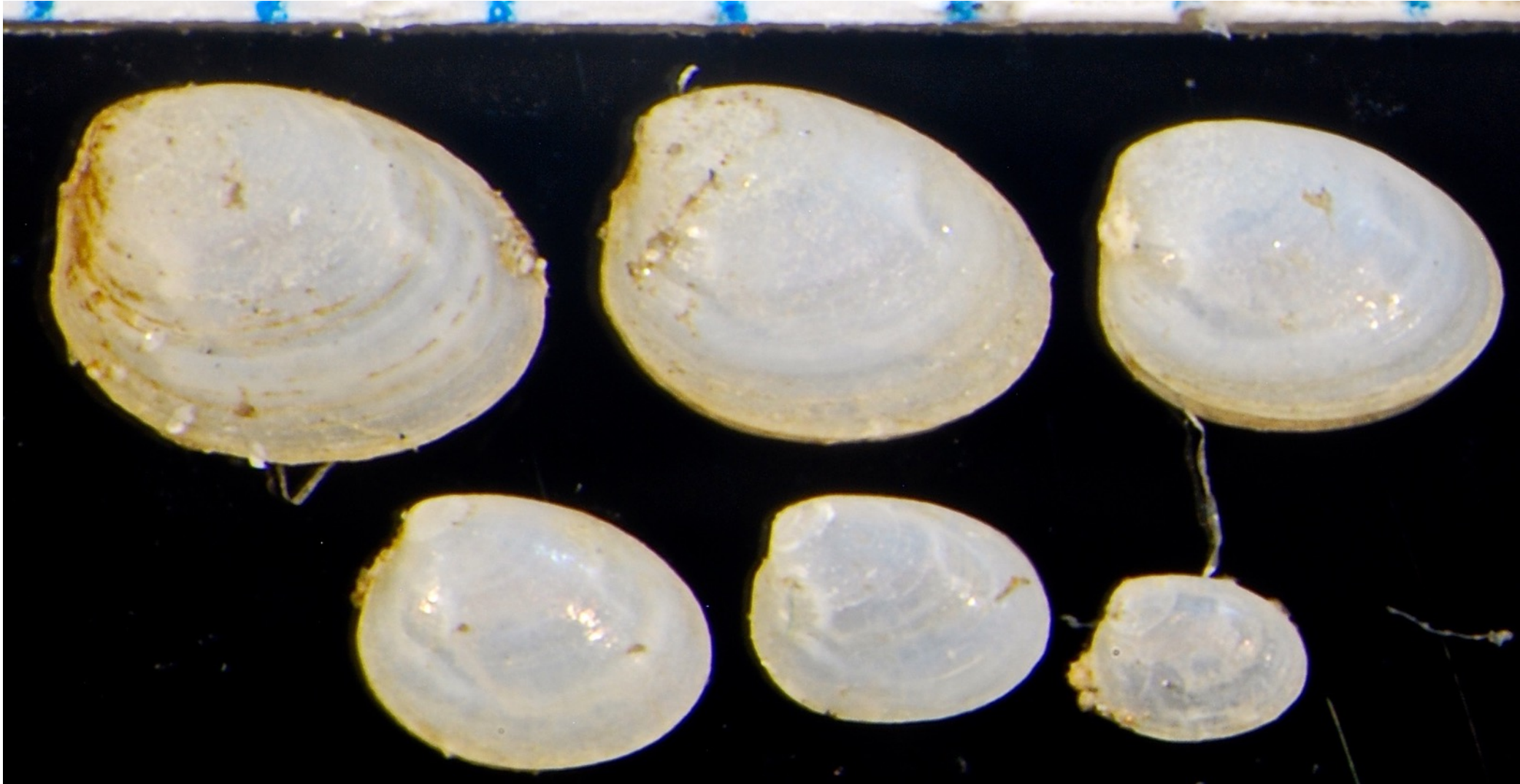
Pristes oblongus Carpenter 1864



Point Loma Intertidal 1976 (found on *Stenoplax conspicua*)
left hinge

right hinge

Pristes oblongus Carpenter 1864

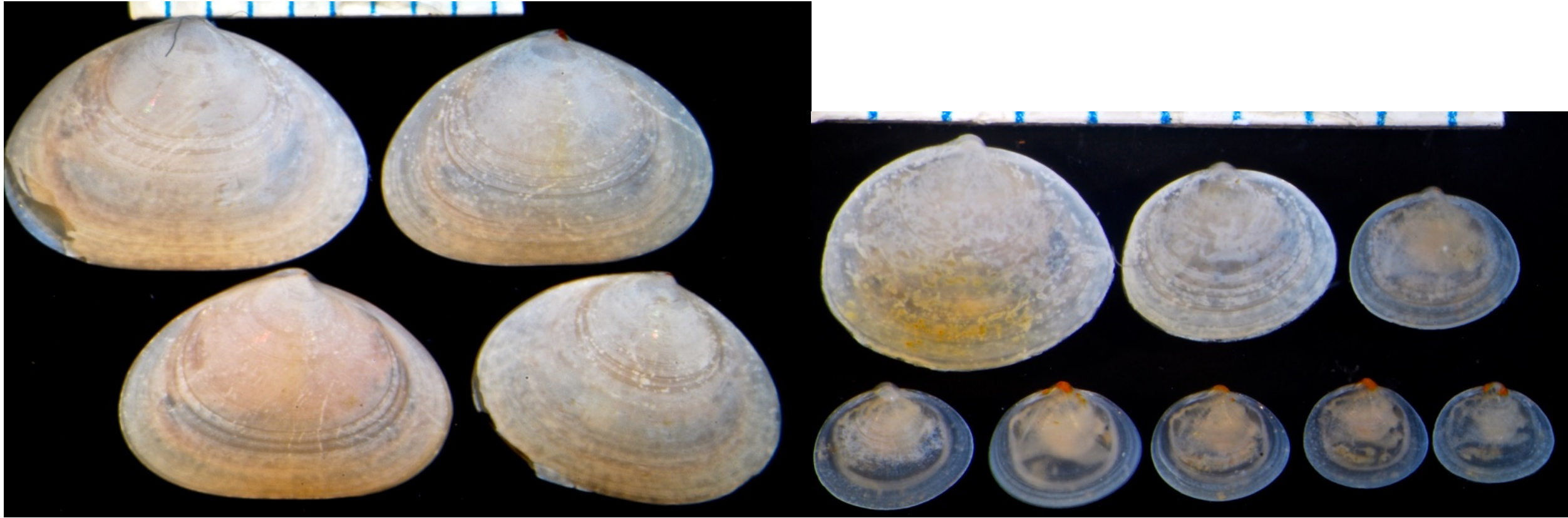


Point Loma Intertidal 1976 (found on *Stenoplax conspicua*)

Specimens courtesy of Carol Paquette MBC

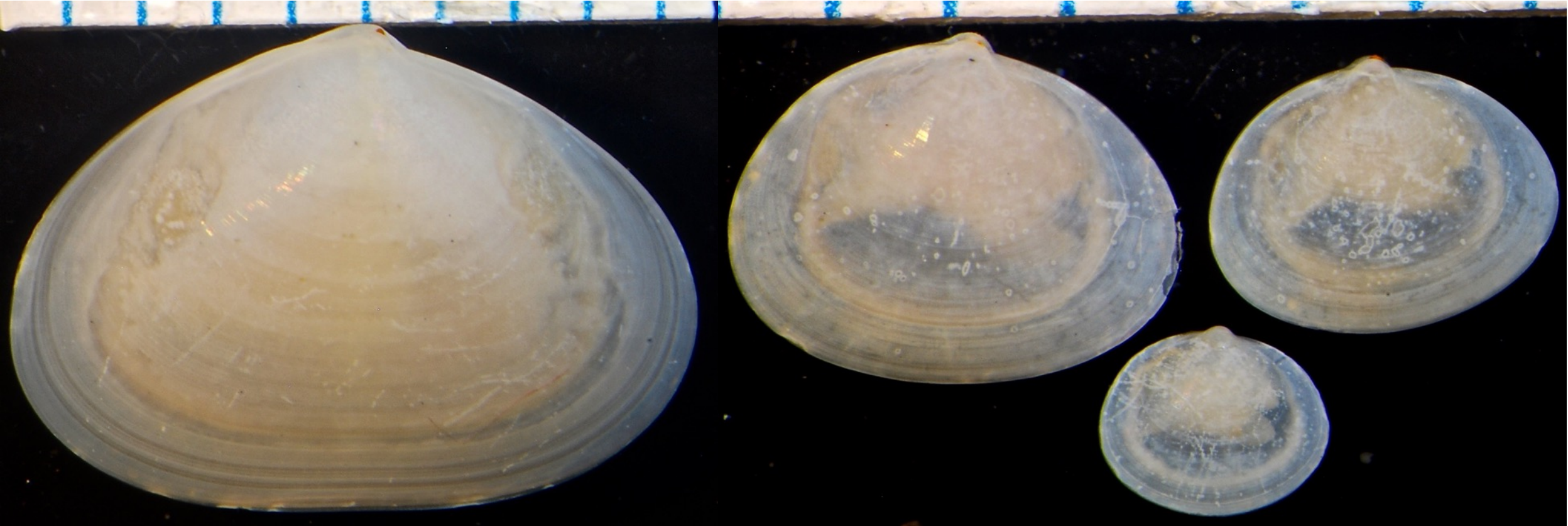
T. Phillips for SCAMIT 11APR2022

Rhamphidonta retifera (Dall 1899)



LACSD 5D 30m 1994

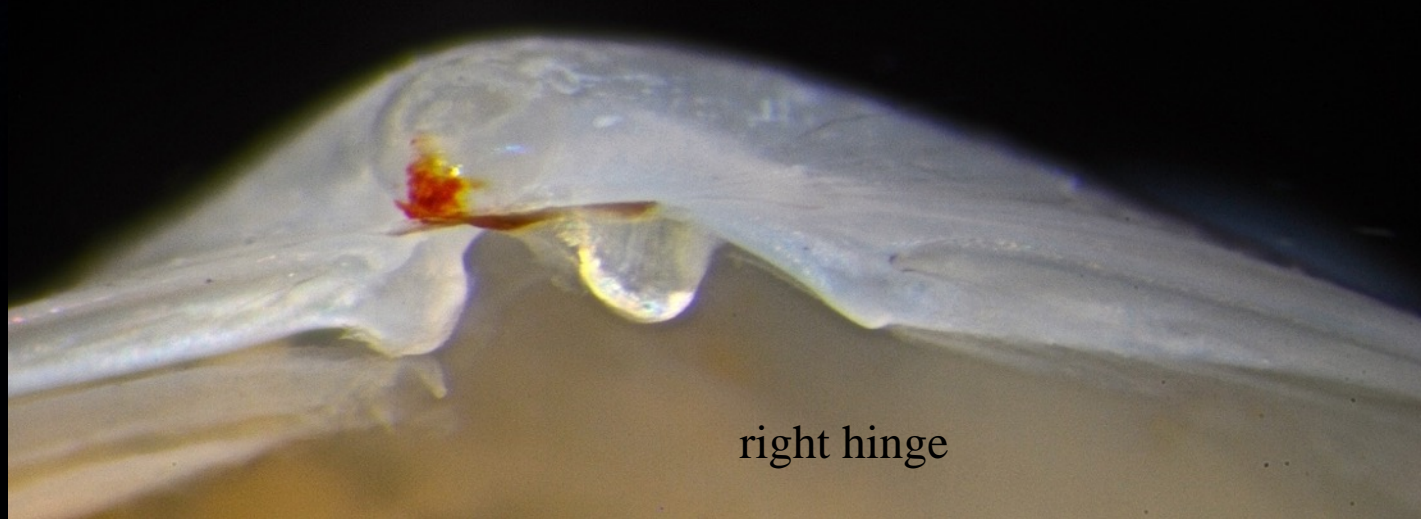
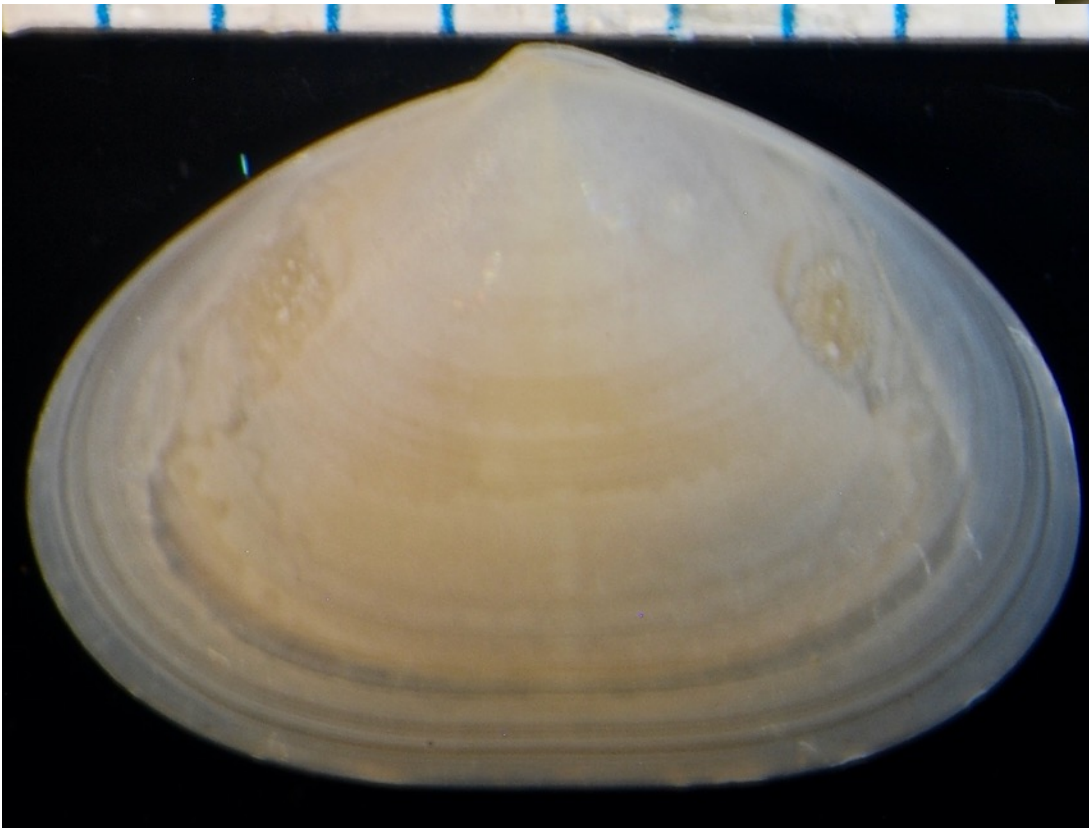
Rhamphidonta retifera (Dall 1899)



LACSD 5D 30m 1995

LACSD 6D 30m 2002

Rhamphidonta retifera (Dall 1899)

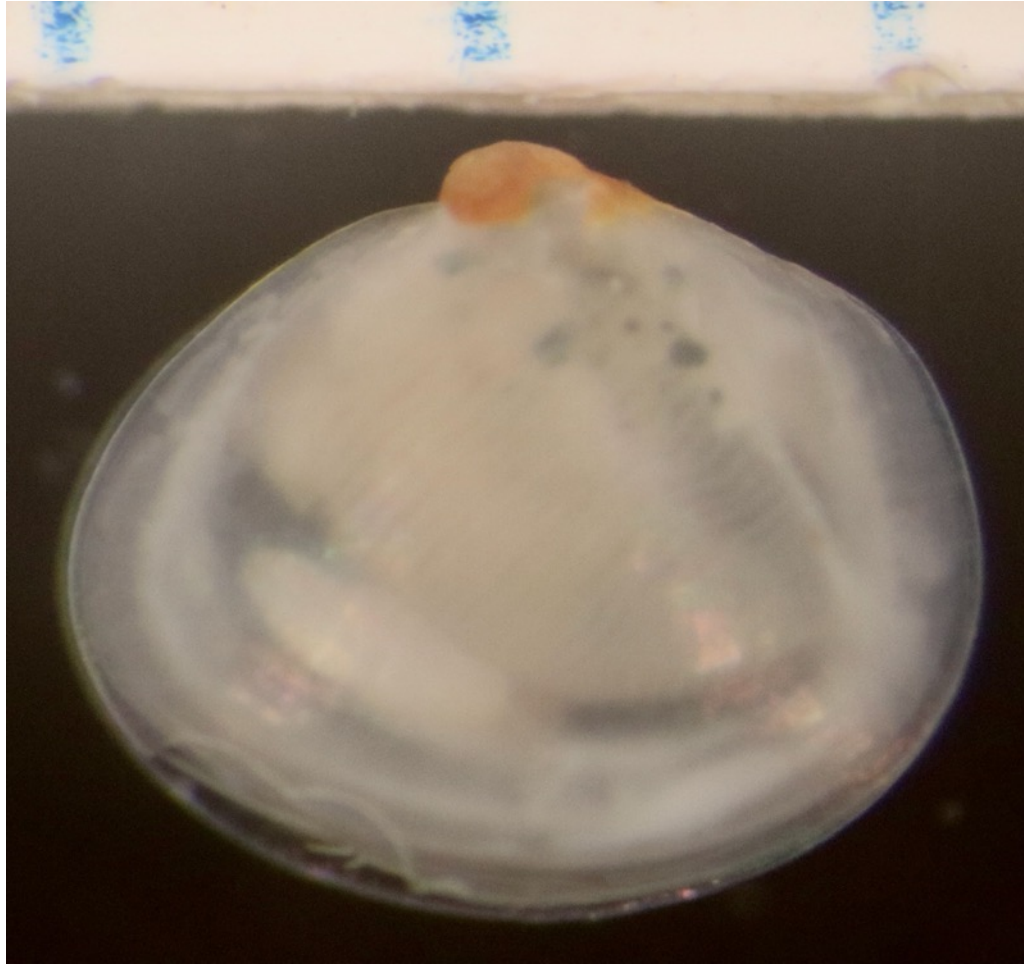


LACSD 3D 30m 1995

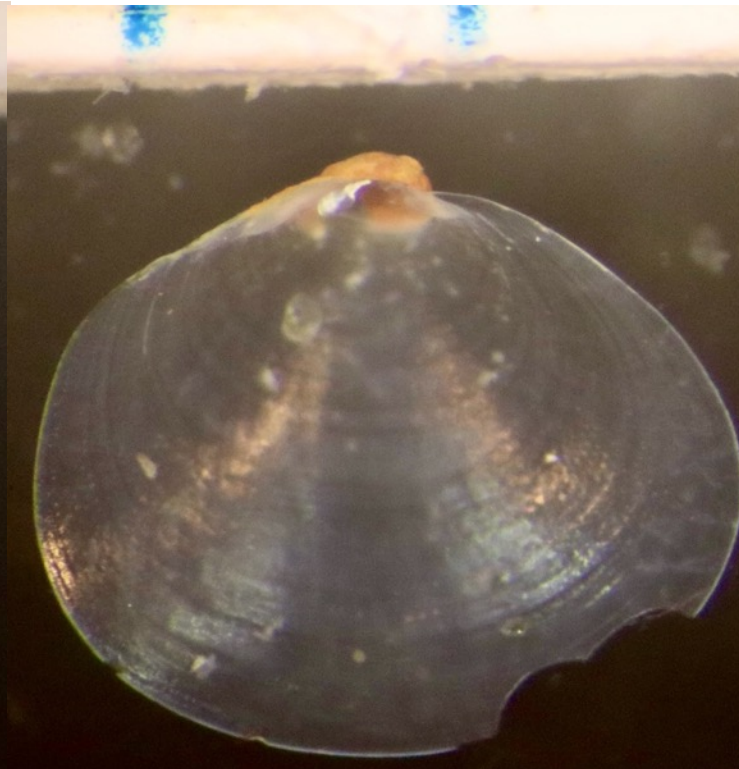
Specimen courtesy of Don Cadien LACSD

T. Phillips for SCAMIT 11APR2022

Rhamphidonta retifera (Dall 1899) juvenile



CCSF SWOO34 24.5m 9/6/2018



Left valve



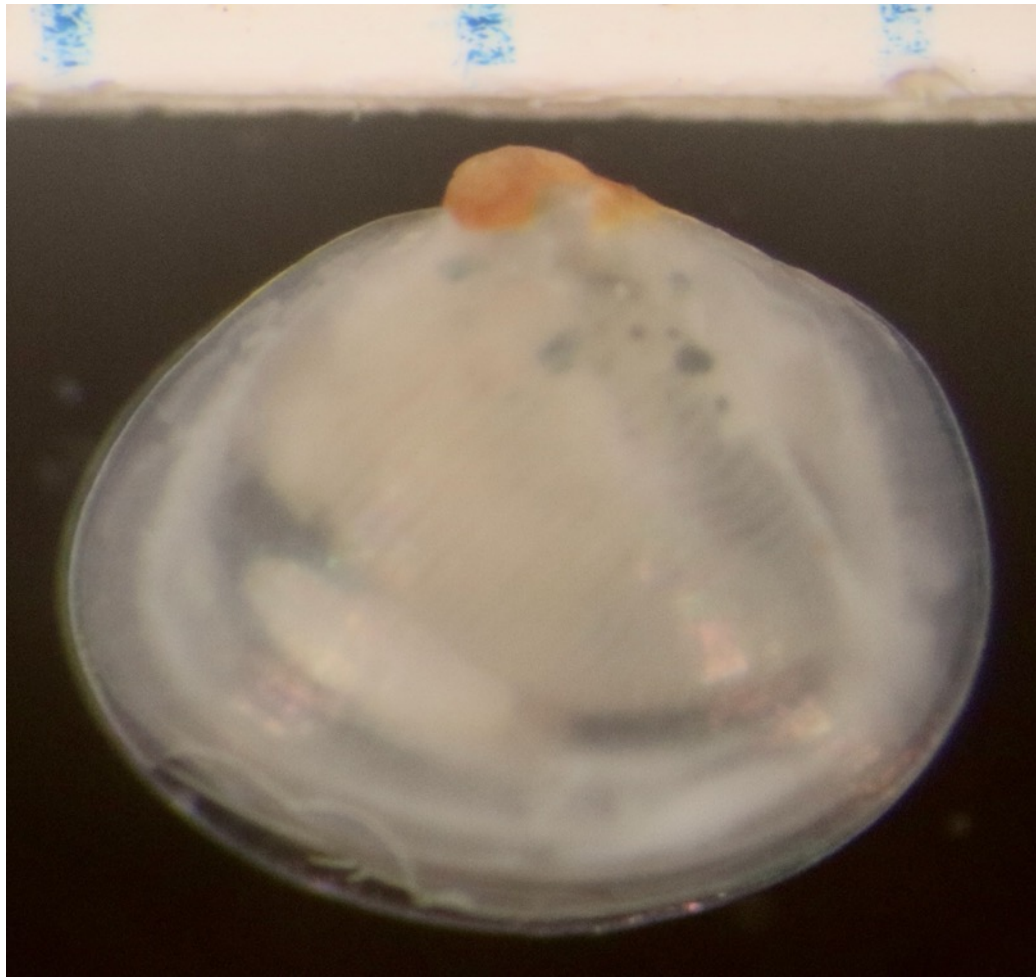
Right valve



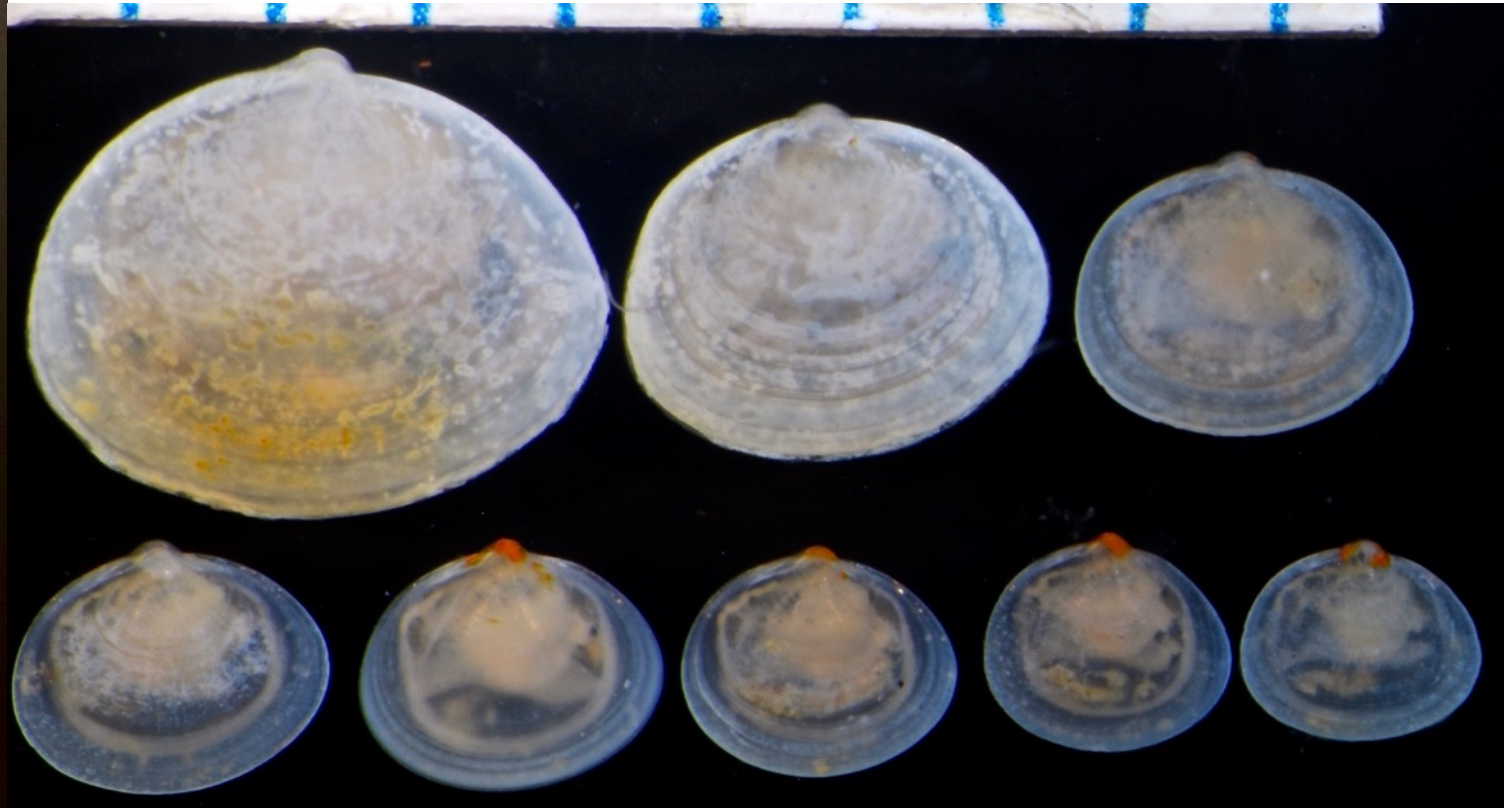
T. Phillips for SCAMIT 11APR2022

Specimen courtesy of Heather Petersen CCSF

Rhamphidonta retifera (Dall 1899) juvenile

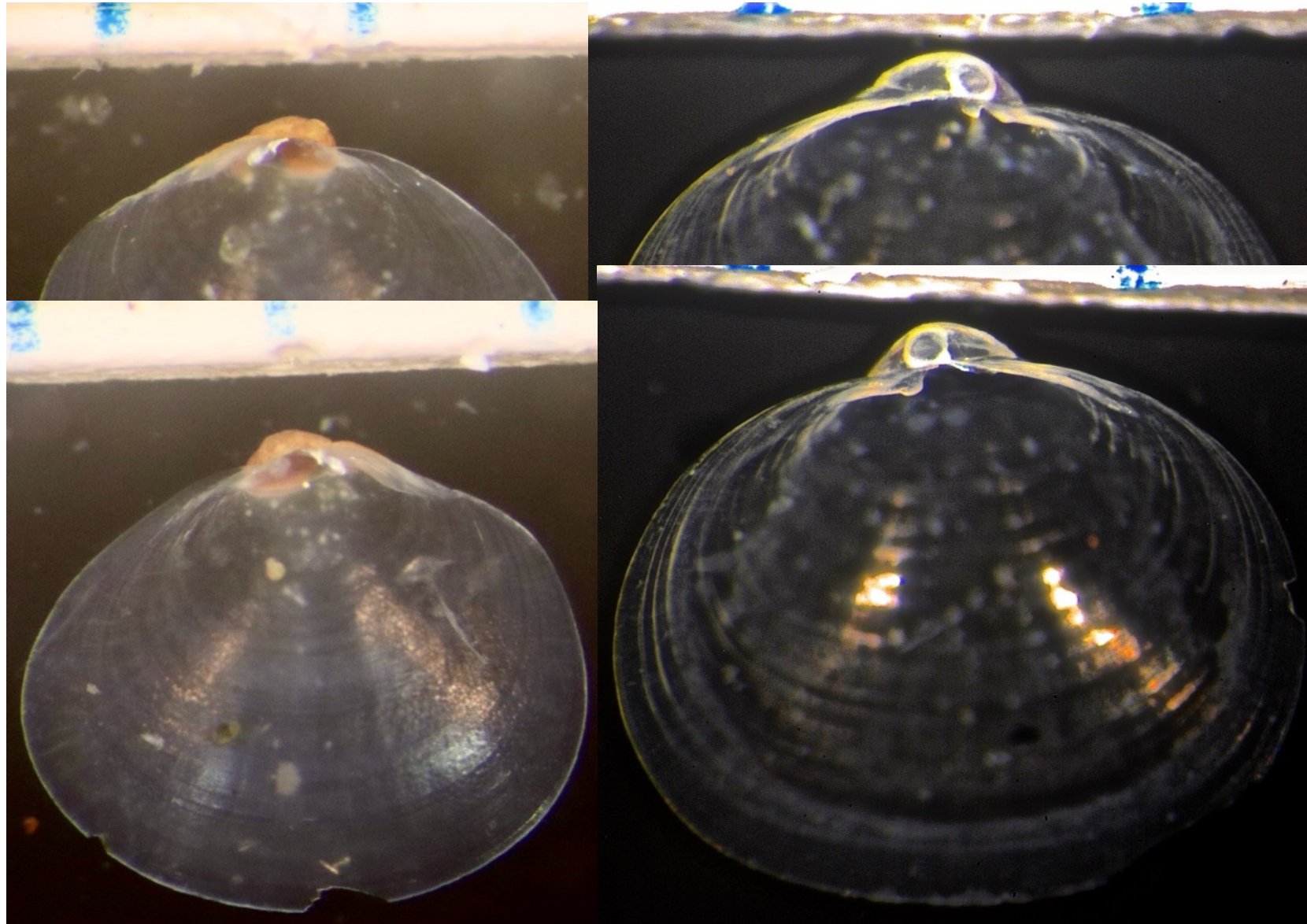


CCSF SWOO34 24.5m 9/6/2018

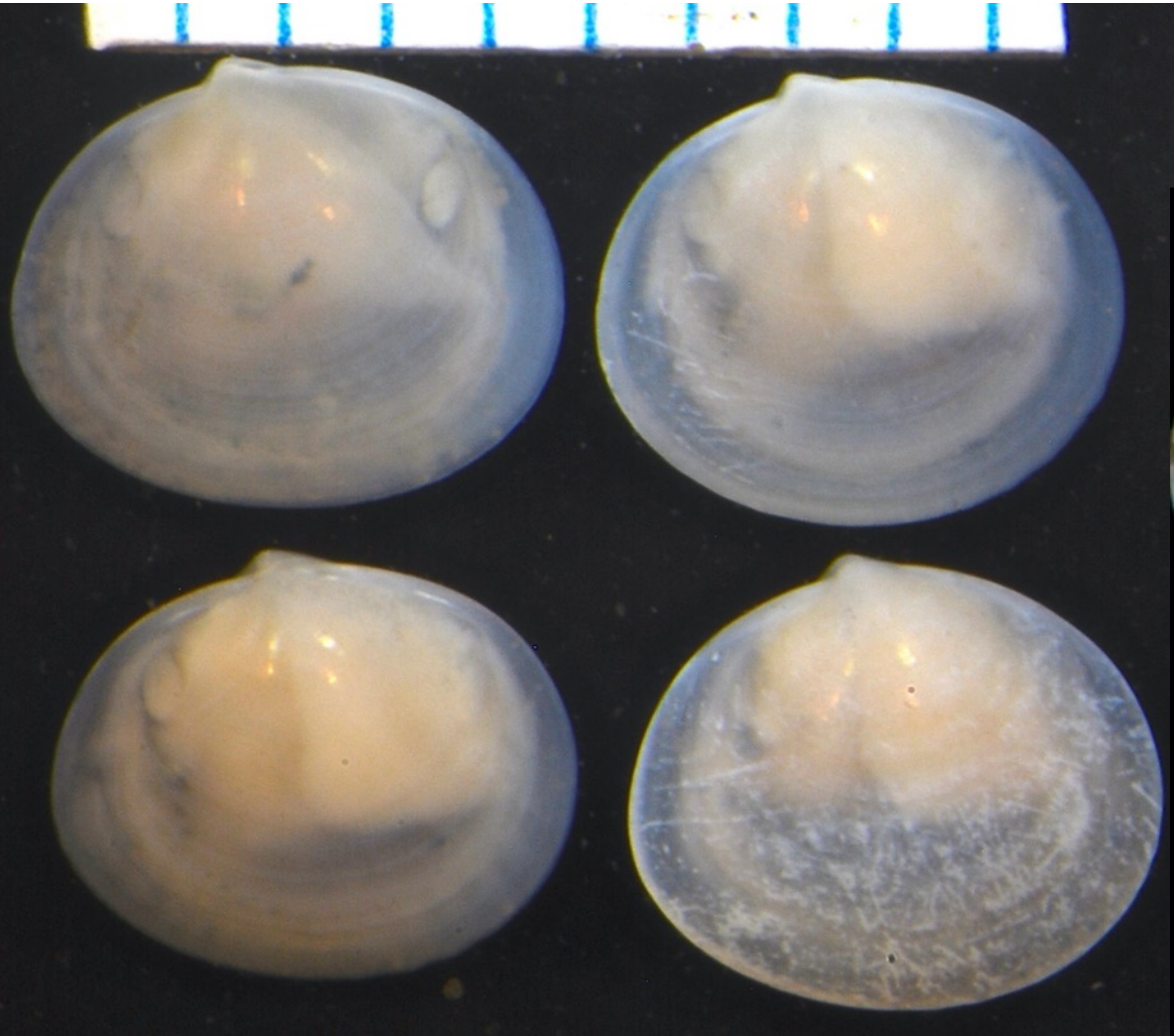


LACSD 5D 30m 1994

Rhamphidonta juvenile/*Kellia* juvenile



Cymatioa vs *Rhamphidonta* (adult)



Outer Los Angeles Harbor HM10 21m 2017

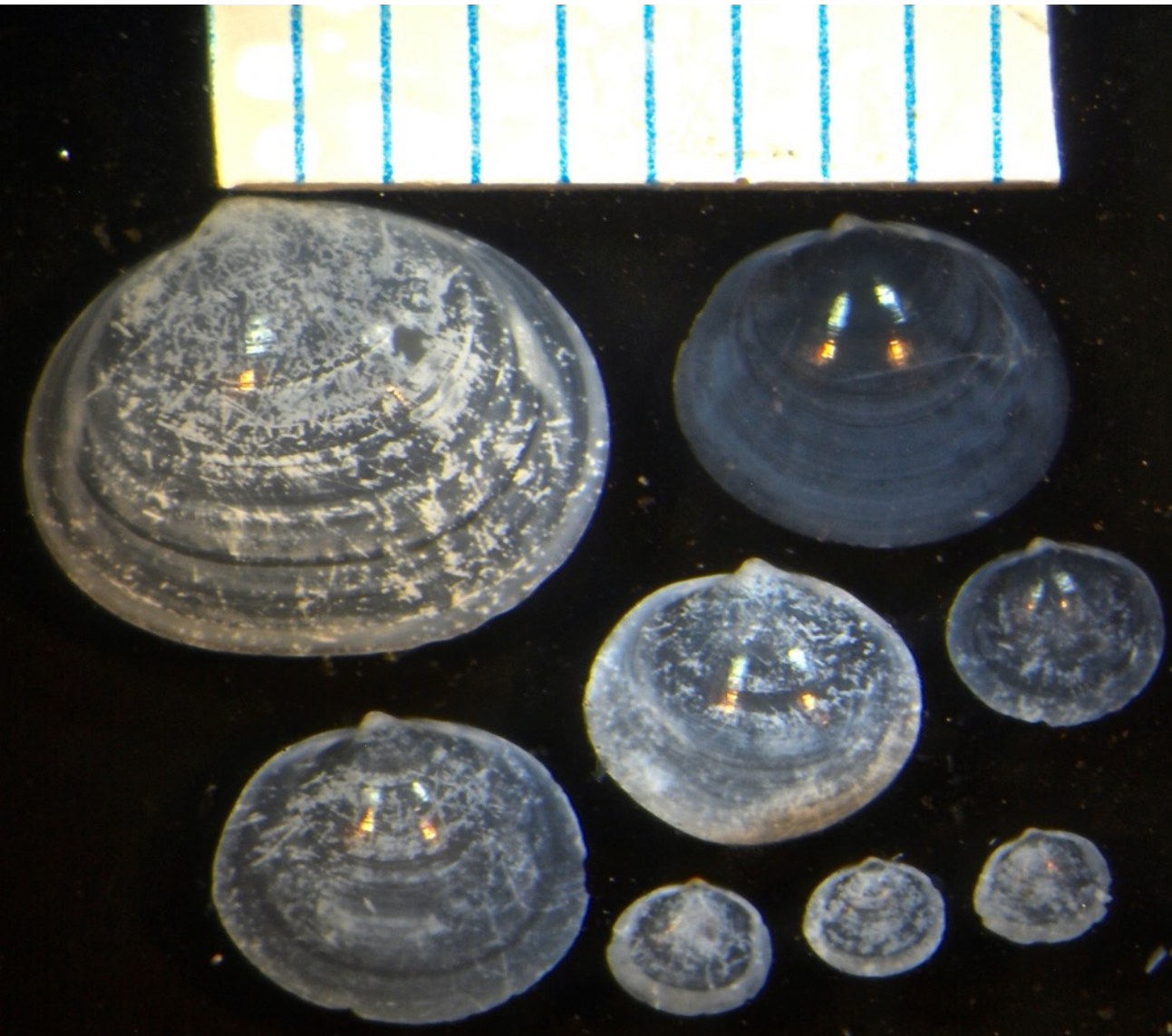
Specimens courtesy of Greg Lyon CLAEMD



LACSD 5D 30m 1994

Specimens courtesy of Don Cadien LACSD

Cymatioa vs *Rhamphidonta* (juvenile)



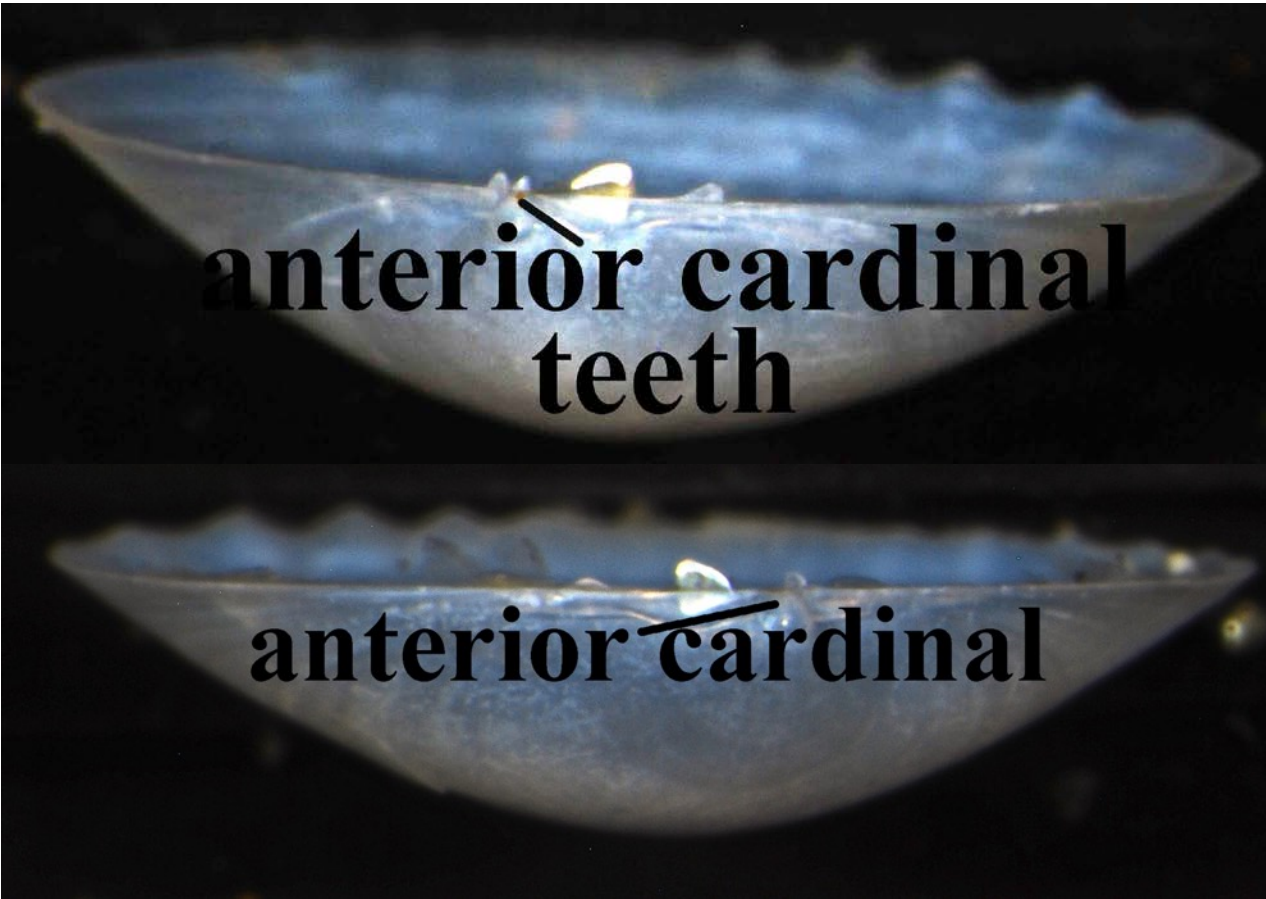
Los Angeles Harbor HM10 21m 2017



T. Phillips for SCAMIT 11APR2022

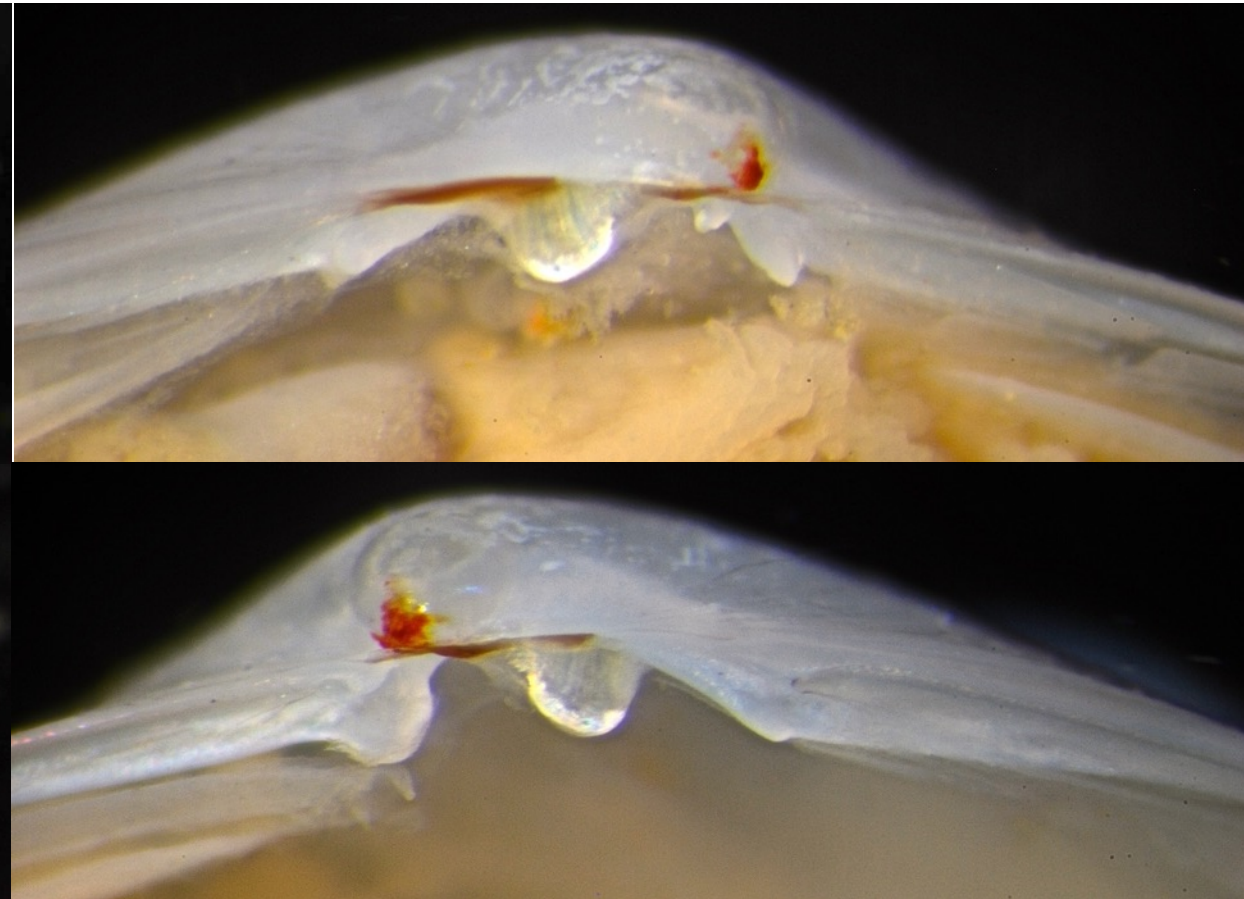
LACSD 5D 30m 1994

Cymatioa vs Rhamphidonta



Left valve above

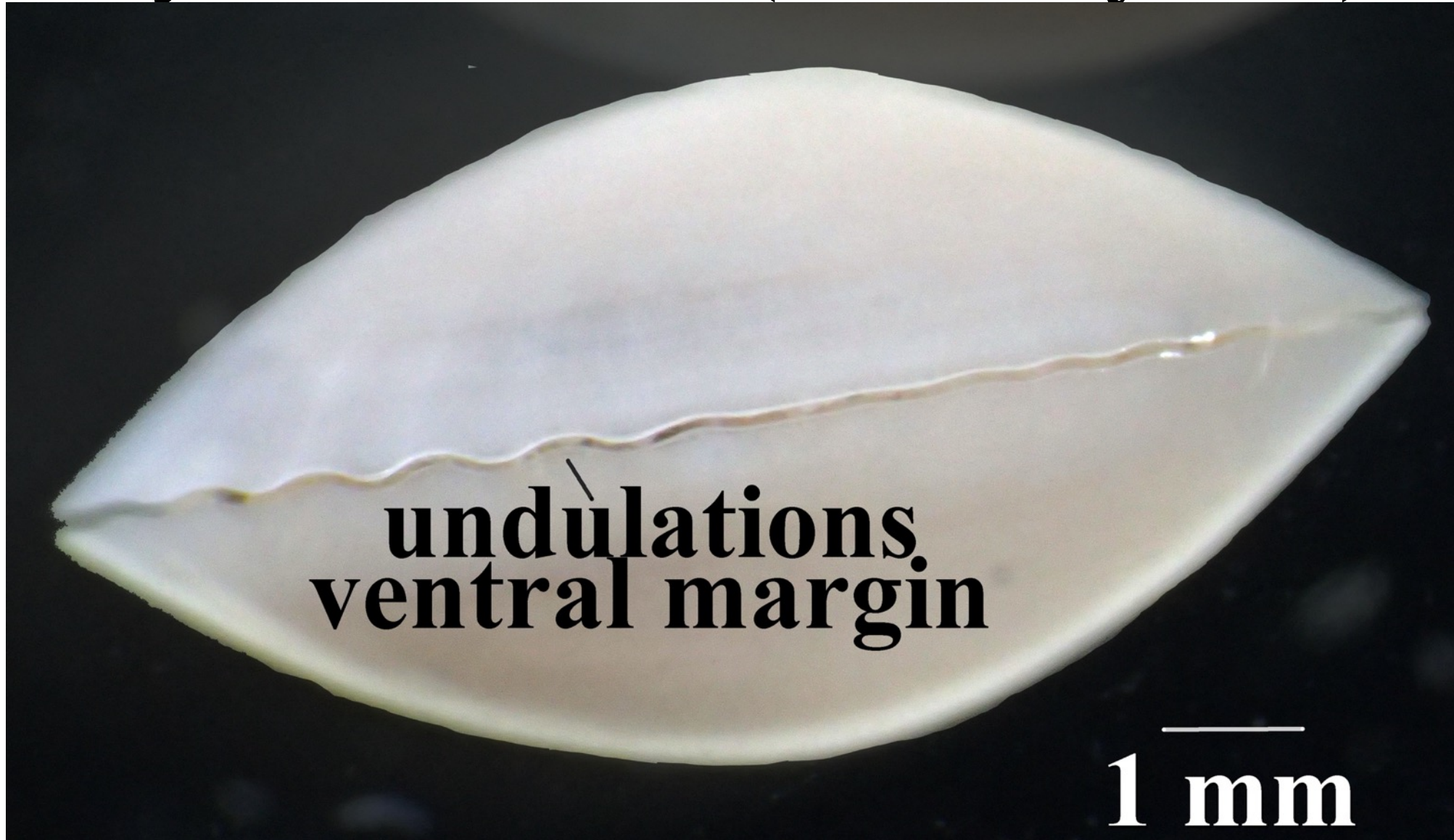
Right valve below



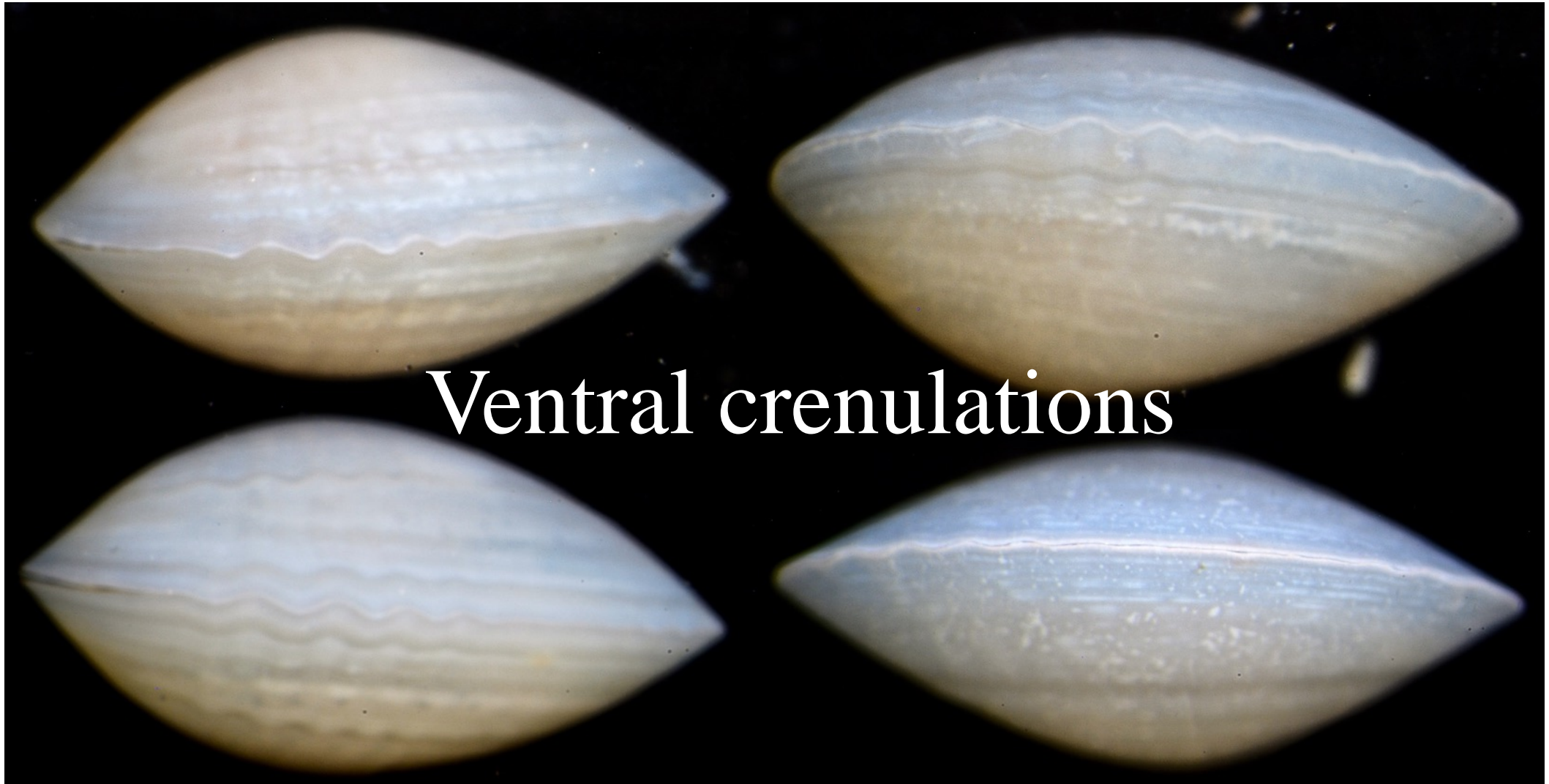
Left valve above

Right valve below

Cymatinoa electilis (S.S. Berry 1963)



Cymatinoa electilis (S.S. Berry 1963)



Ventral crenulations

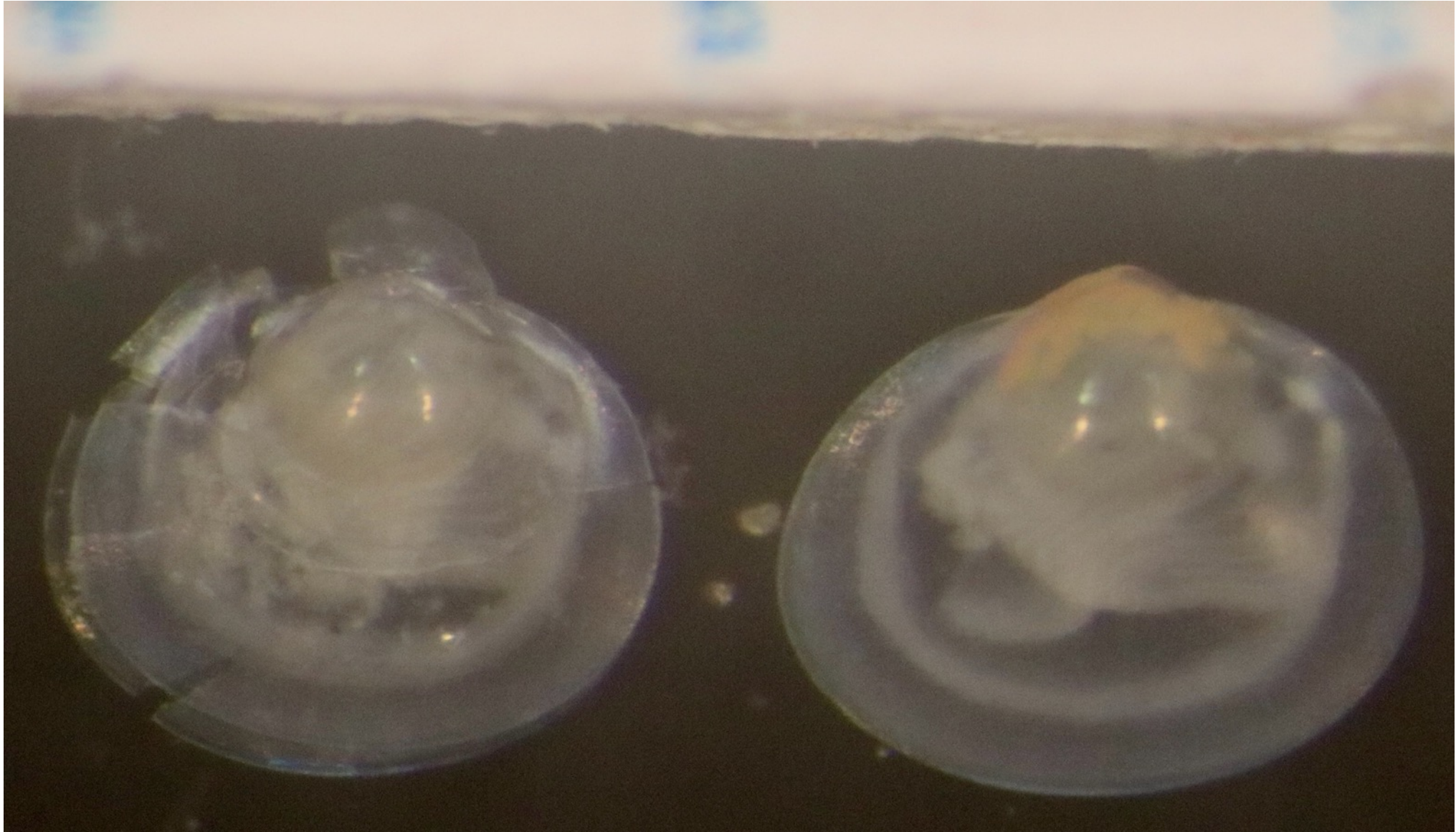
LACSD 3D 30m 1997

6.5 mm above left, 6.0 mm below left

5.0 mm above right, 4.0 mm below right

T. Phillips for SCAMIT 11APR2022

Lasaeidae juvenile



Specimens courtesy of Heather Petersen CCSF CCSF SWOO 35 28.5m 9/12/2017
T. Phillips for SCAMIT 11APR2022

Family Cardiidae

- 1. Valves ovoid to rounded, equivalve, inflated**
- 2. Sculpture of radial ribs, sometimes spinose or frilled or absent**
- 3. Hinge with two conical, hooked cardinal teeth in each valve**
- 4. Ligament external**

Clinocardium nuttallii (Conrad 1837)



ISS Voucher 3151QX13.02 Humboldt Bay 8/9/2006

T. Phillips for SCAMIT 11APR2022

Clinocardium nuttallii (Conrad 1837)



Avila Beach 30m 2016



Puget Sound 15m 2015

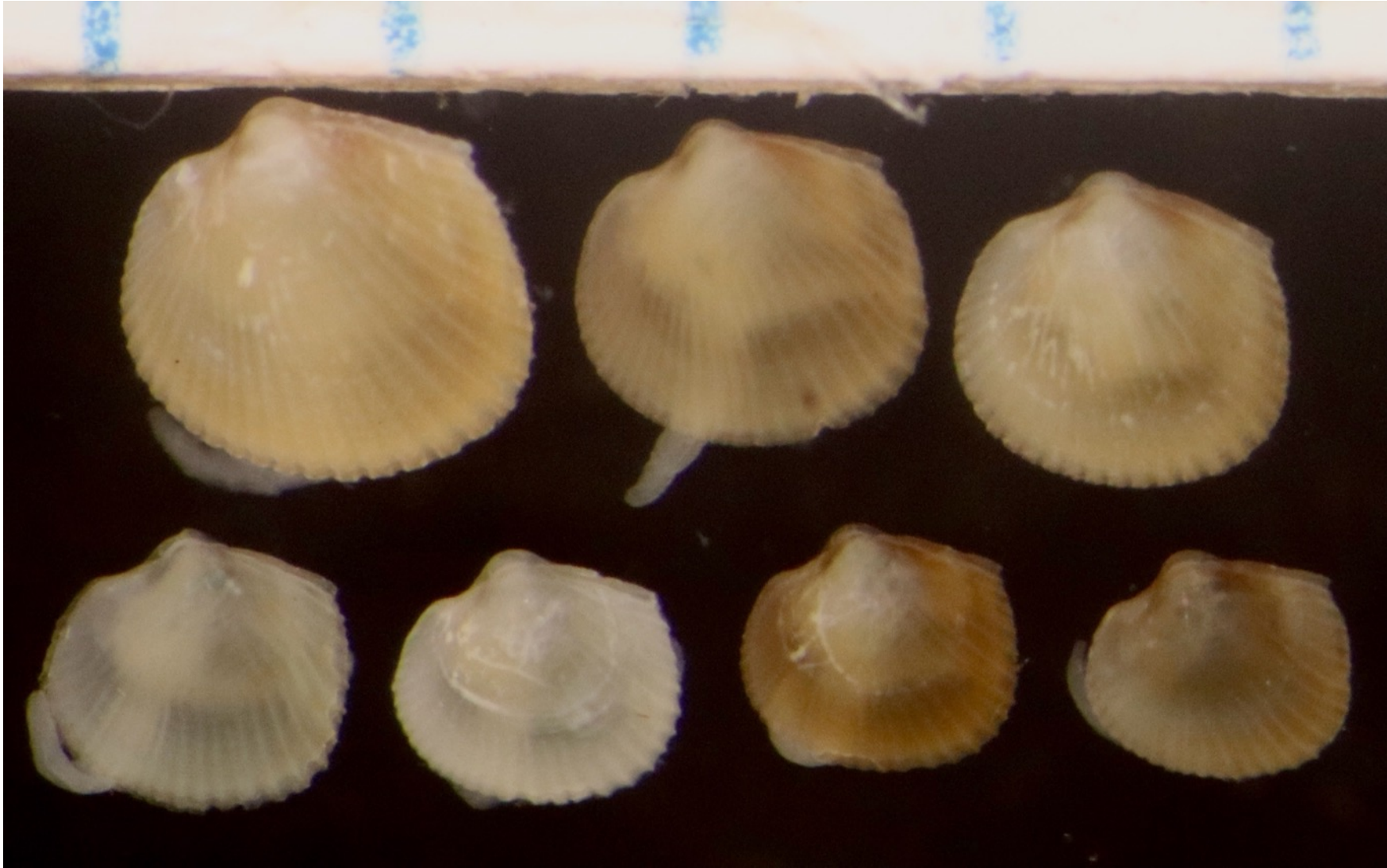
Clinocardium nuttallii (Conrad 1837)



CCSF SWOO65 27.5m 9/1/2020

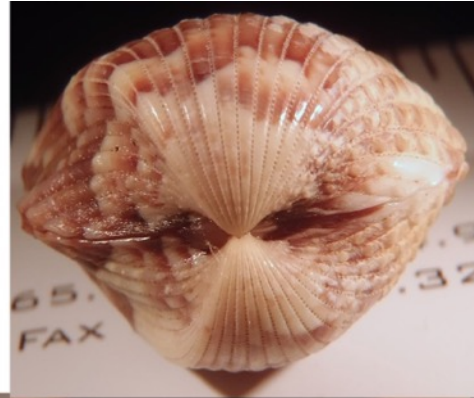
Specimens courtesy of Heather Petersen CCSF

Clinocardium nuttallii (Conrad 1837)



CCSF SWOO71 29.5m 9/11/2019

Americardia biangulata (Broderip & G.B. Sowerby I 1829)



Photos courtesy of Kelvin Barwick

Americardia biangulata
(Broderip & G.B. Sowerby I 1829)



Catalina Two Harbors Beach Drift 1976

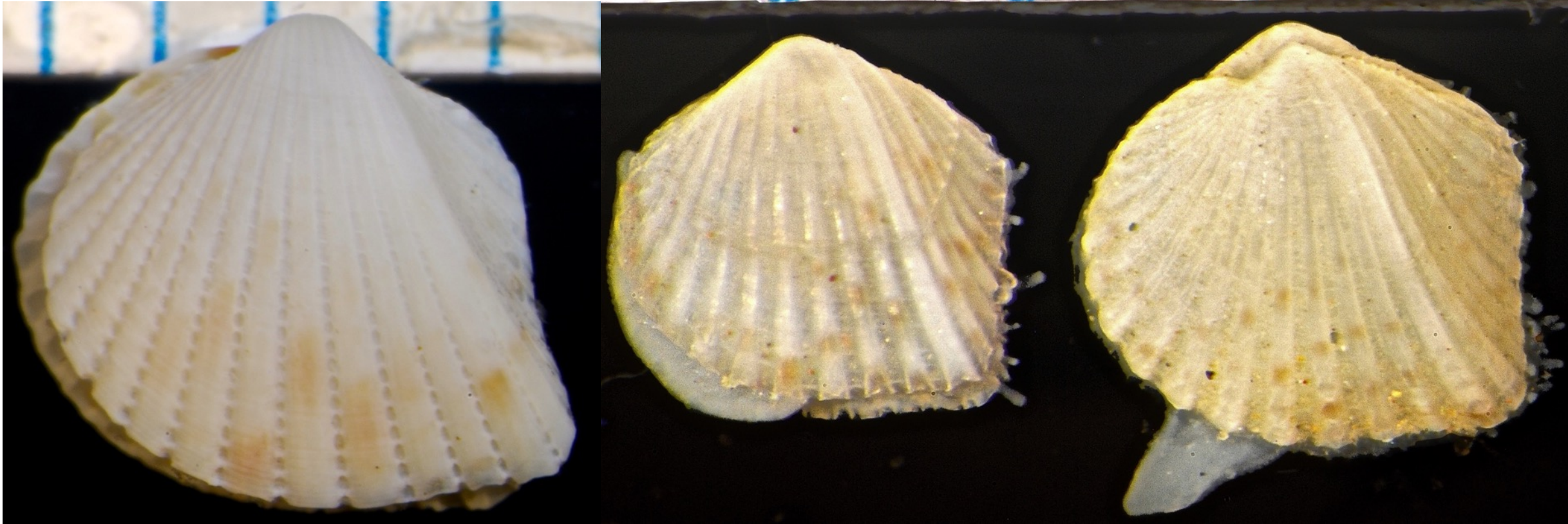
left hinge

right hinge

Specimen courtesy of Carol Paquette MBC

T. Phillips for SCAMIT 11APR2022

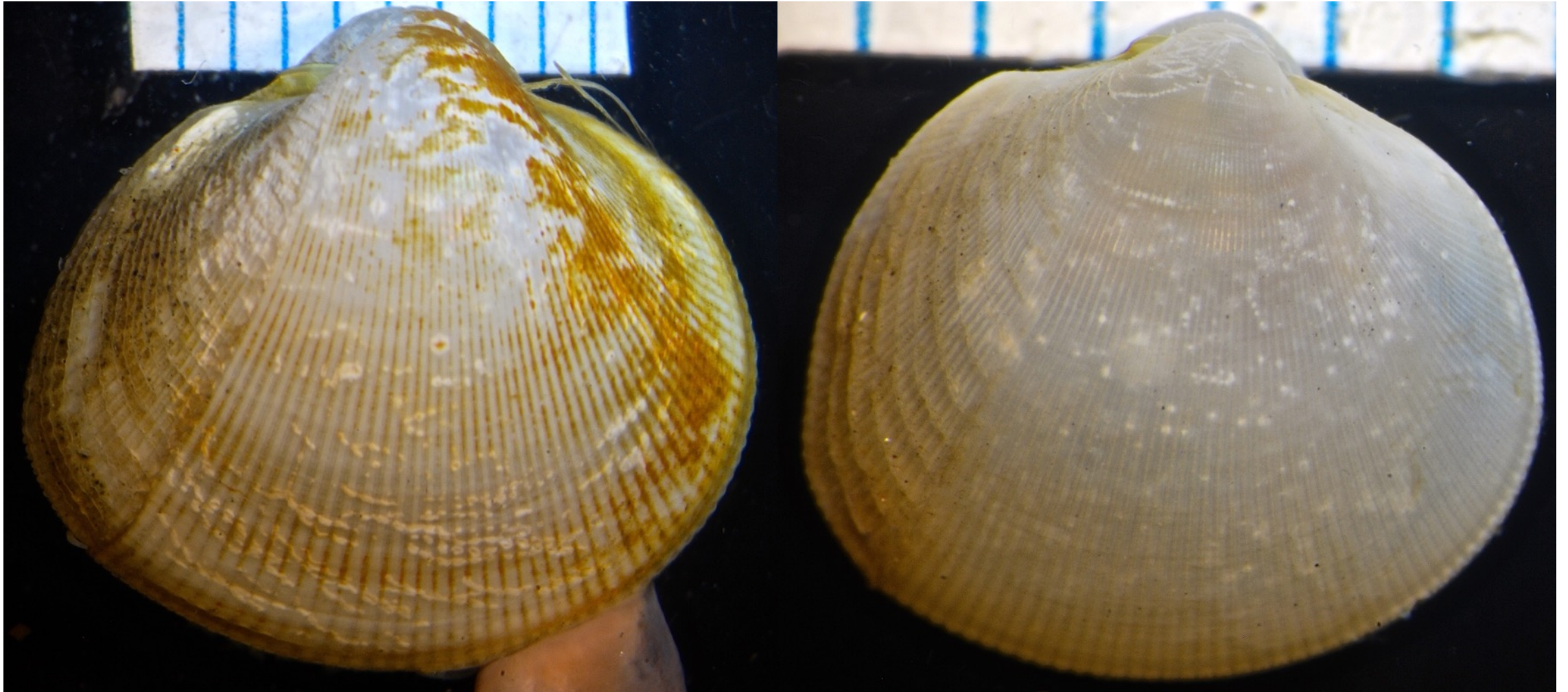
Americardia biangulata
(Broderip & G.B. Sowerby I 1829)



B'98 2068 Catalina 11m

Avalon 003 30m 2015

Keenaea centifilosa (Carpenter 1864)



Santa Monica Bay C4(2) 59m 1992

B'98 2515 Santa Cruz Island 102m

Keenaea centifilosa (Carpenter 1864)

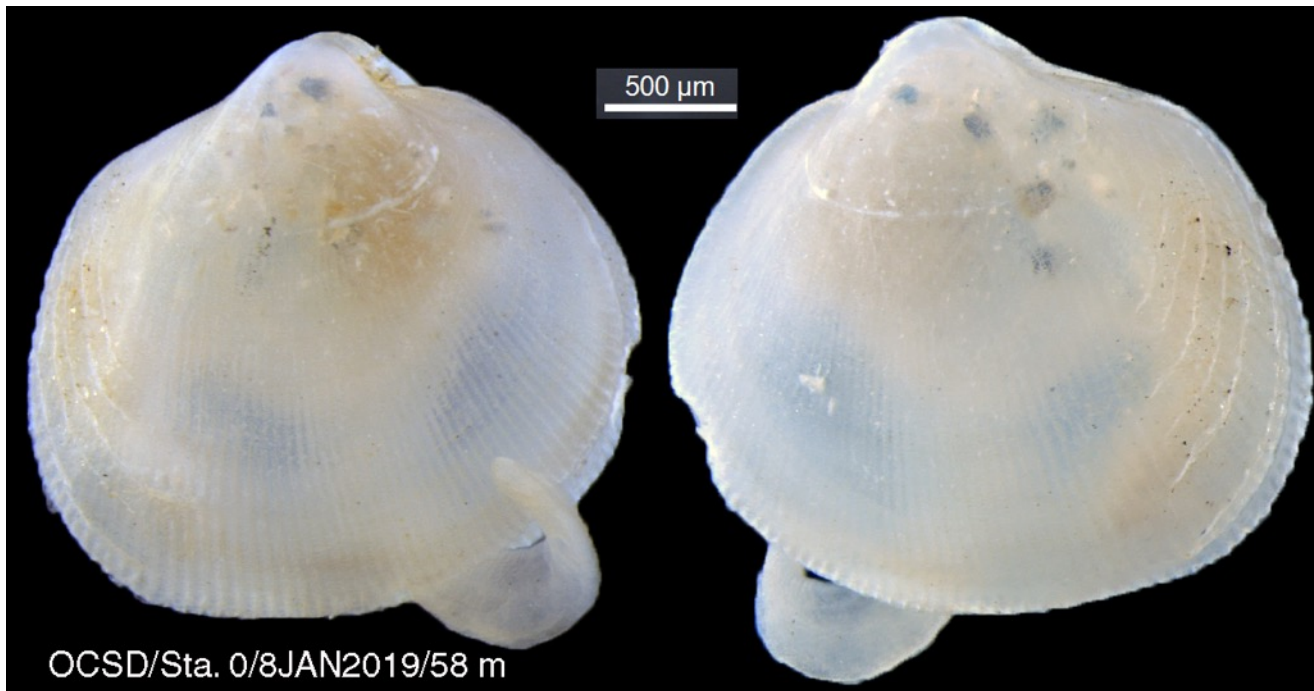
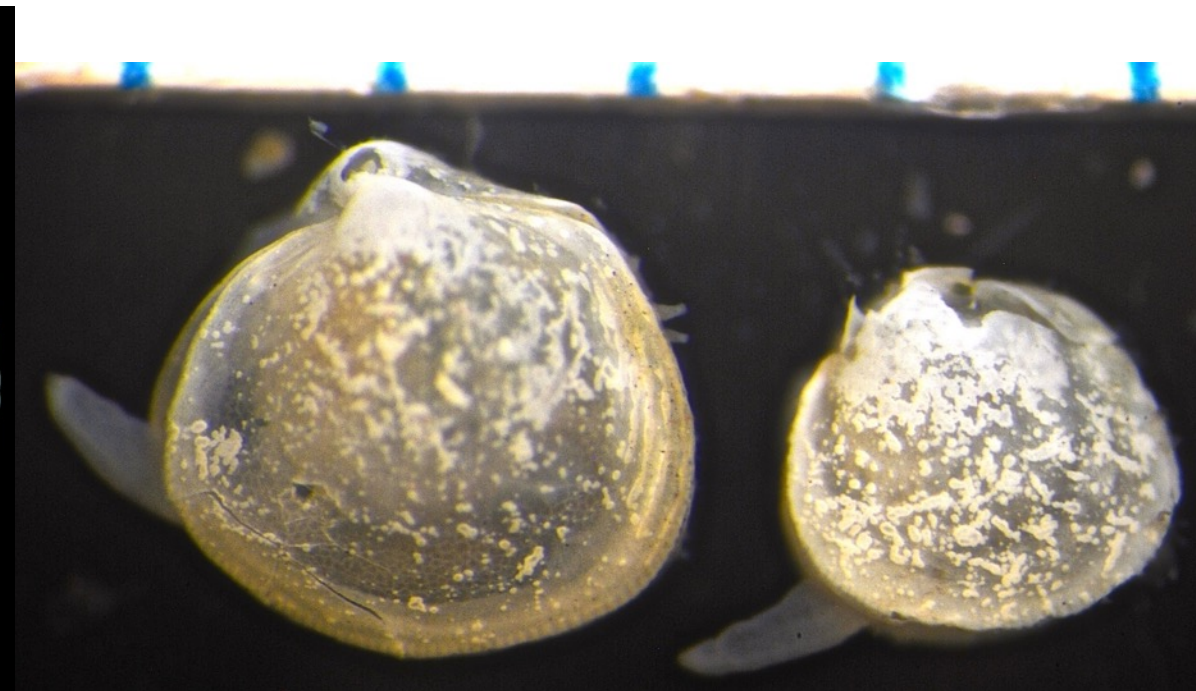
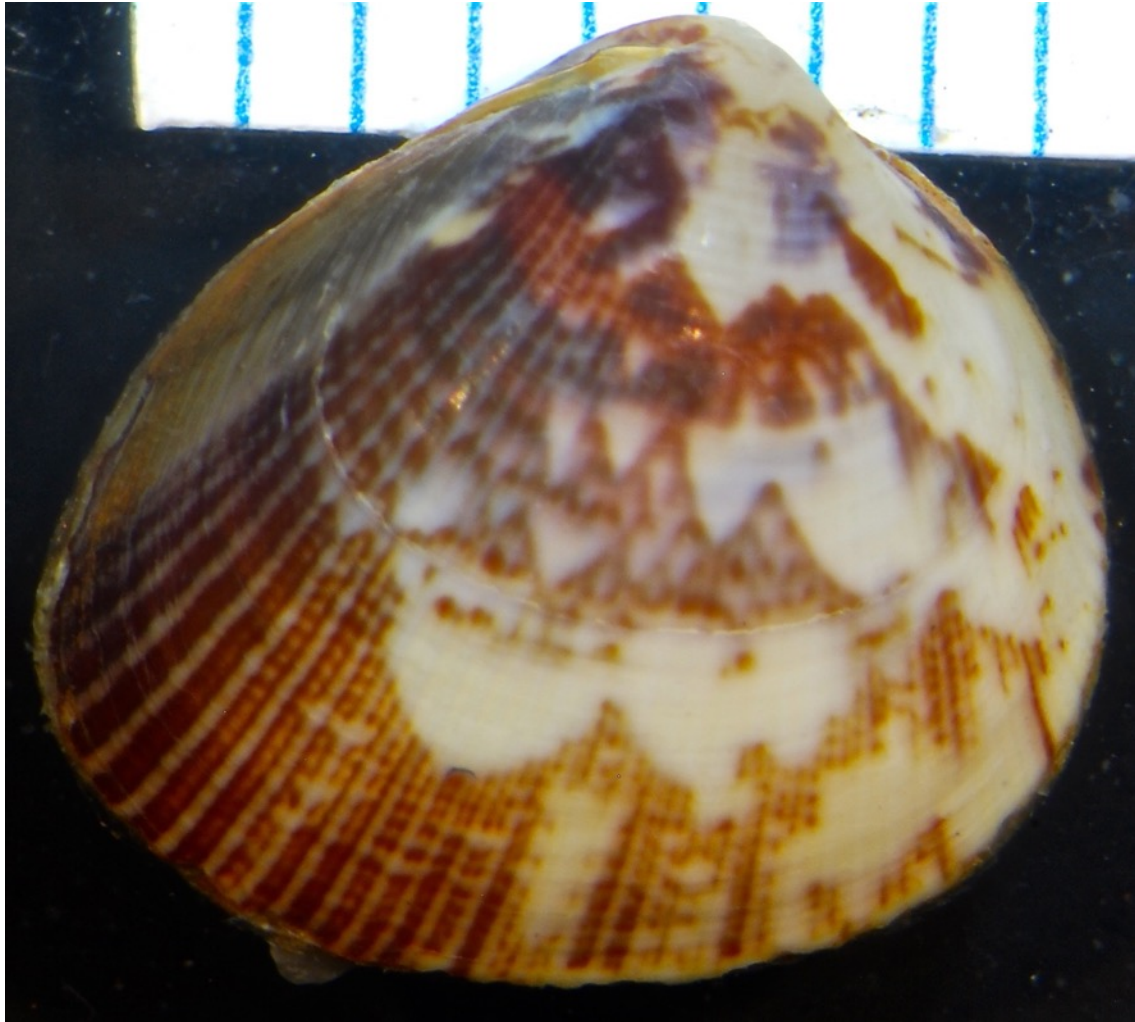


Photo courtesy of Kelvin Barwick

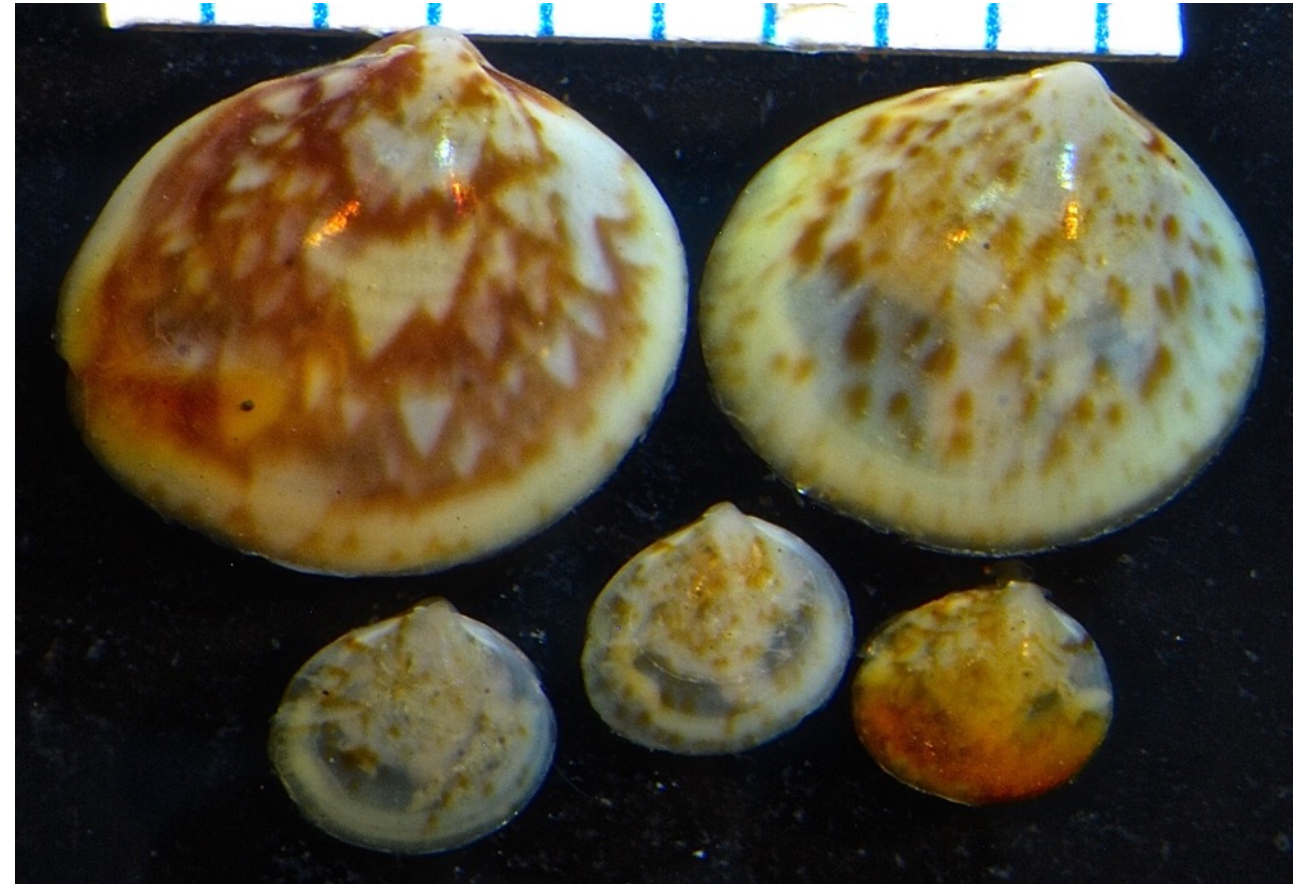


City of San Diego B9 101m 2019

Laevicardium substriatum (Conrad 1837)



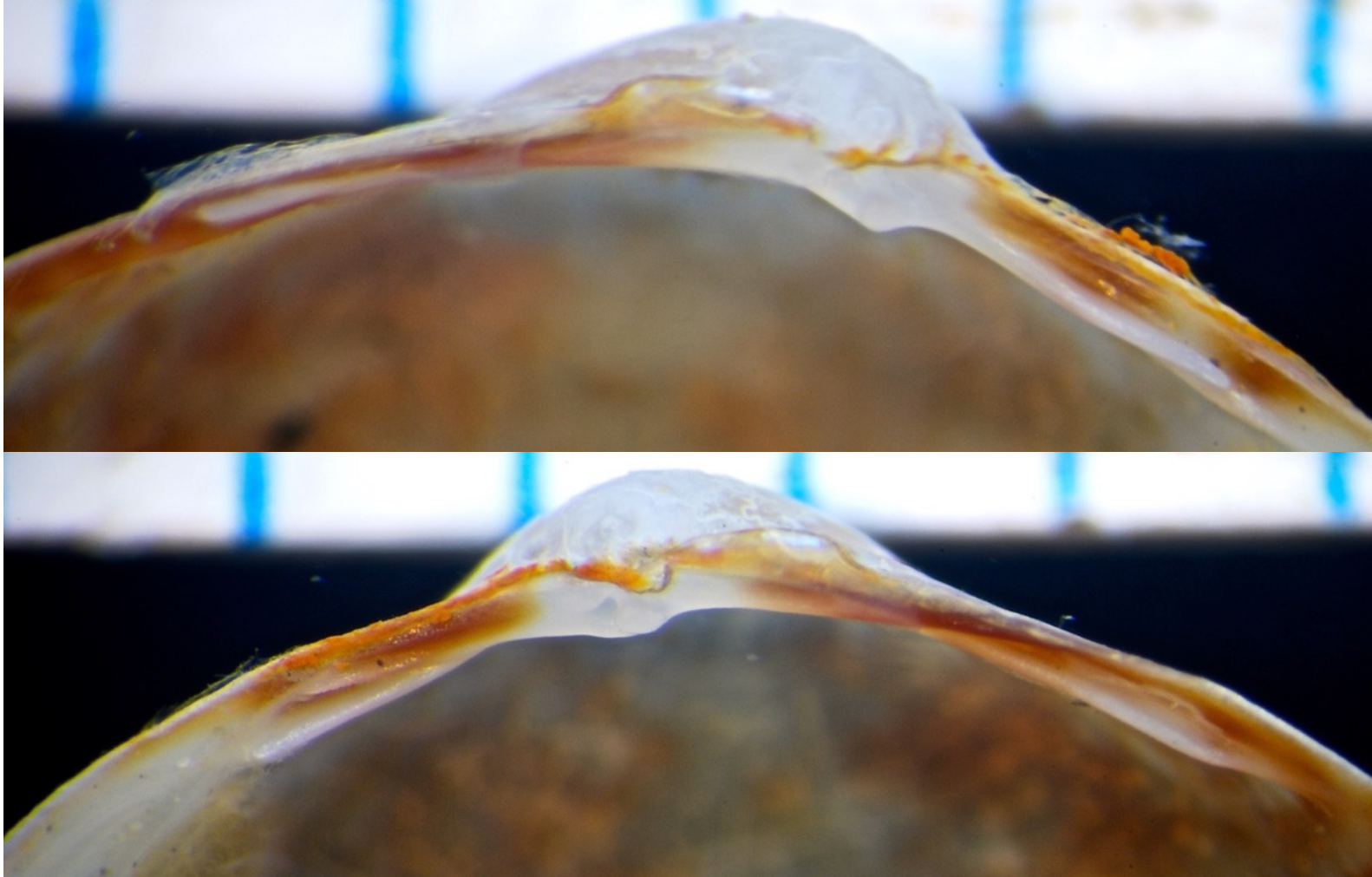
Batiquitos Lagoon 3m 2019



T. Phillips for SCAMIT 11APR2022

B'18 10068 Dana Point Harbor 2m

Laevicardium substriatum (Conrad 1837)



Arcadis POLA R03-SS 10m 2016
left hinge (above) right hinge (below)

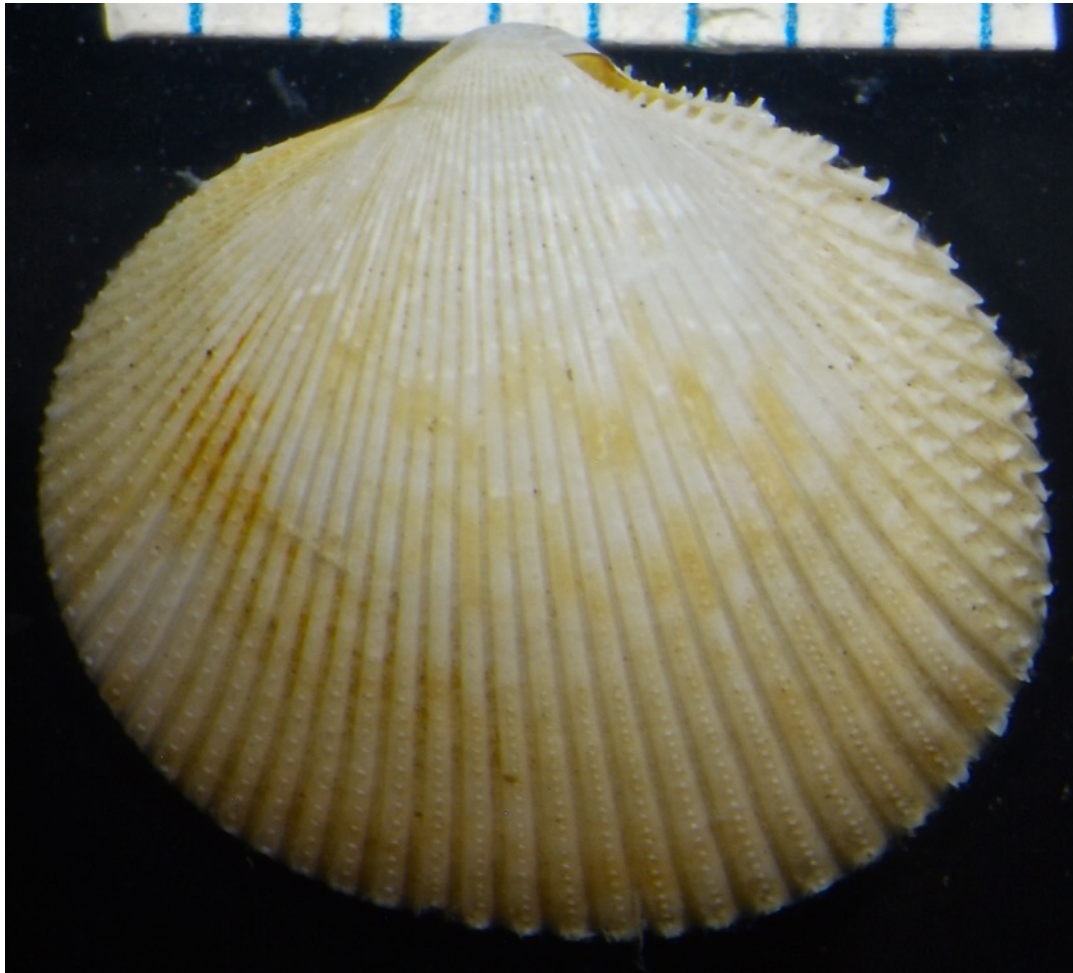
Dallocardia quadragenaria
(Conrad 1837)



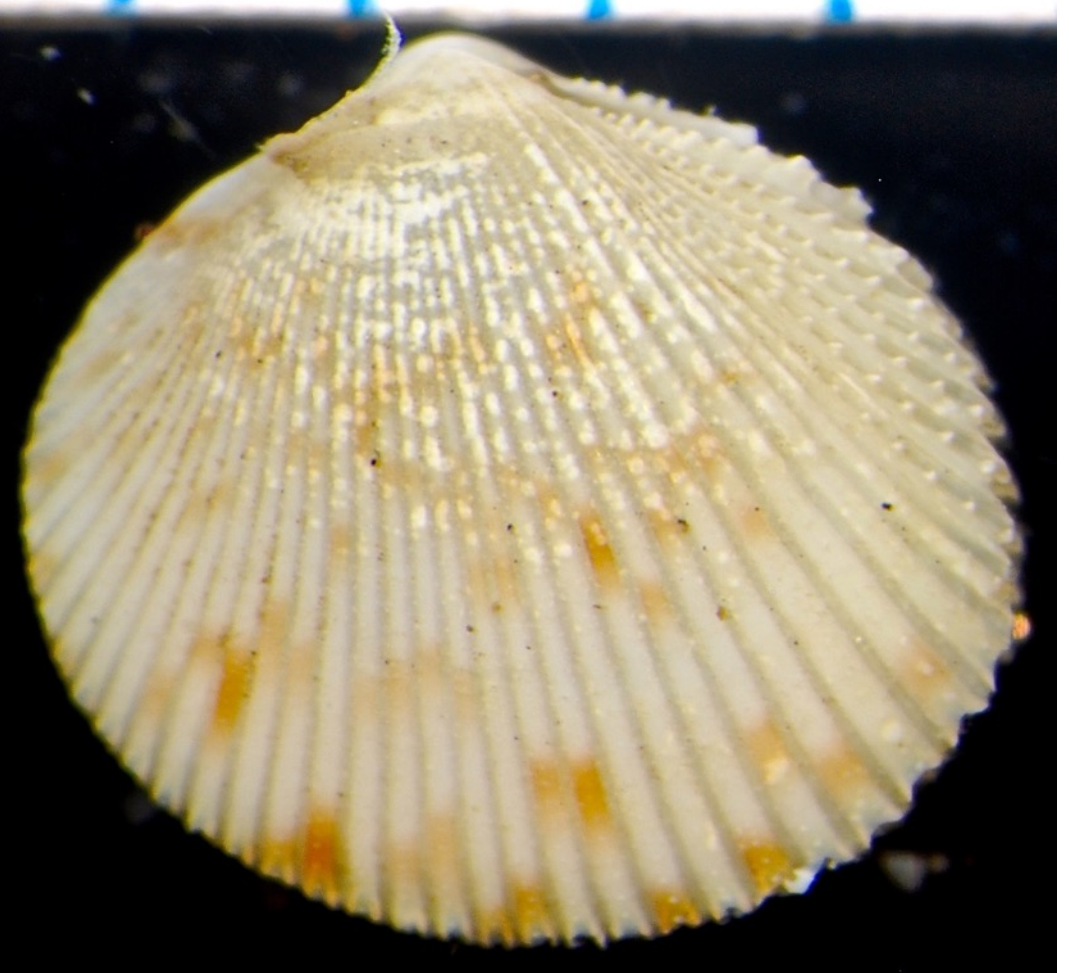
Goleta B5(4) 30m 2019

T. Phillips for SCAMIT 11APR2022

Dallocardia quadragenaria
(Conrad 1837)



Serra Outfall 34m1987



T. Phillips for SCAMIT 11APR2022

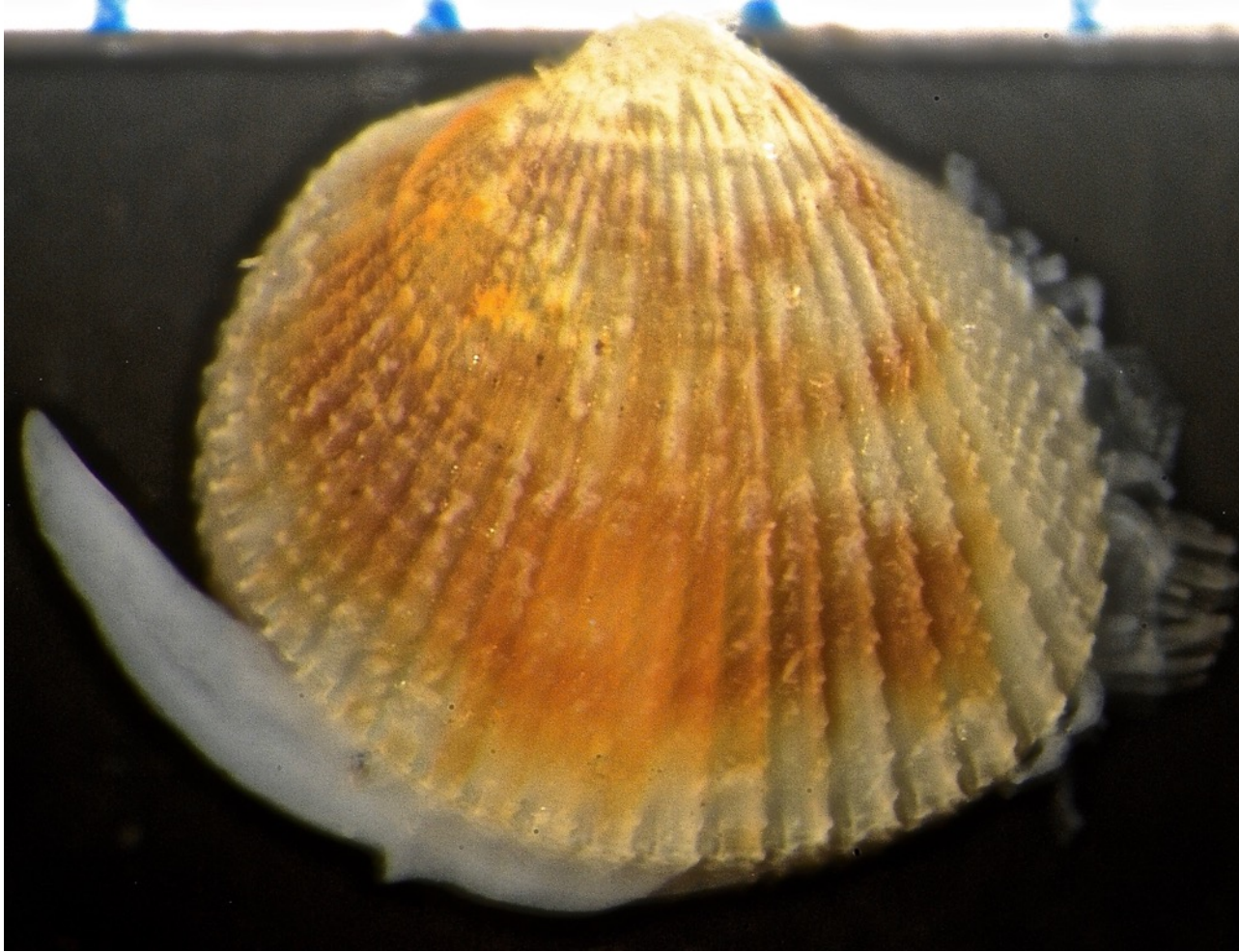
Goleta B1(3) 30m 2019

Dallocardia quadragenaria
(Conrad 1837)

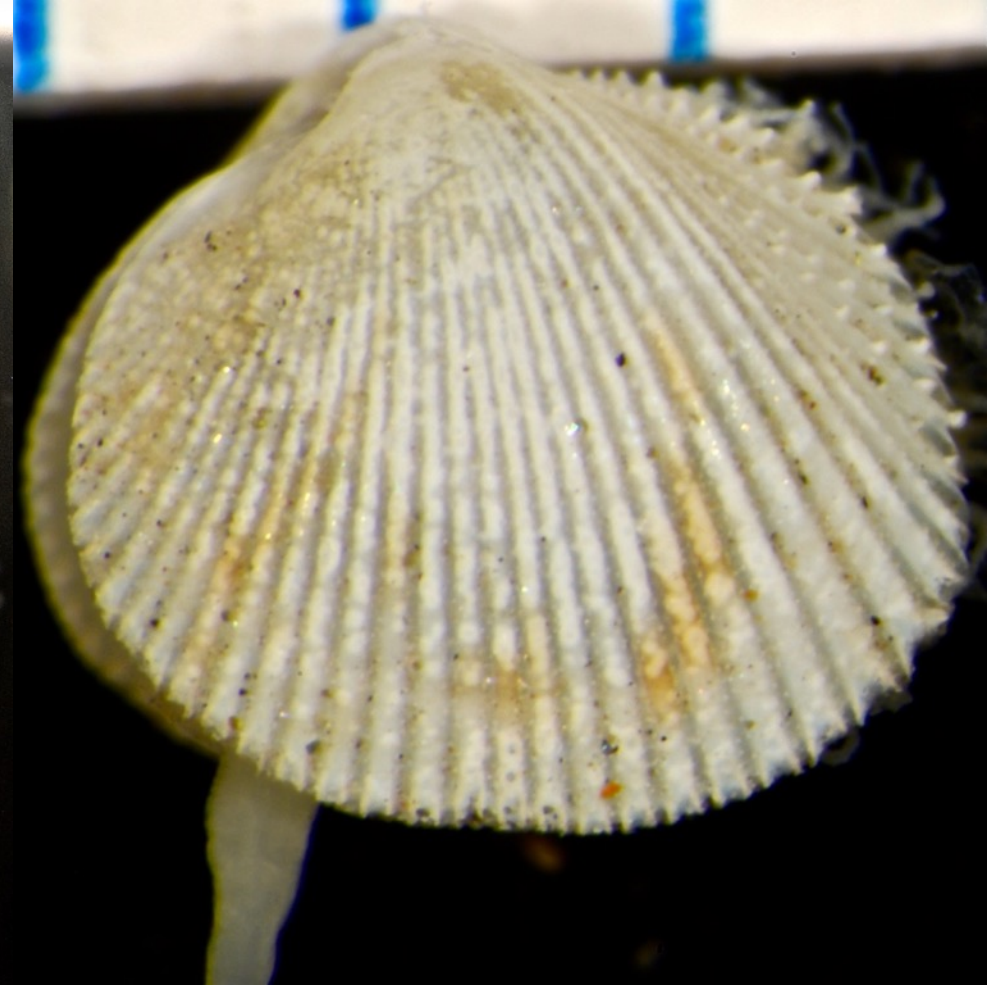


Goleta B2(3) 30m 2016

Dallocardia quadragenaria
(Conrad 1837)



San Luis Obispo 10m 2016



OCSD 20m 2012