



Presidents Message

I hope I never see another article that asks “Why do you collect seashells?”

Why we collect is not the question. There is probably no rational answer. It's debatable whether we choose to collect or are genetically predisposed to it. No matter what the case, once afflicted, how do we go about it?

Here are some questions I'd ask collectors about collecting.

The Concept:

Does your collection evolve over time or was it purposeful? Do you specialize? Was your intent scientific, where the data is more important than the specimen, or were you on a *Personal Odyssey*, where you collect what you encounter? If you were to rate your collection would it be: *world class, serious or casual?*

The Drivers:

Do you strive for completeness? Do you wish to possess the rarest specimens? Do you collect the perfect or the unusual? Do you find color variations or growth series collectible? Do you find yourself in competition with fellow collectors?

Organization:

How important is organization to collecting? Do you organize by *Taxonomy? Aesthetics? Locality?* Is record keeping important? Do you keep a wish list?

Presentation and Display:

Is the collection on-display in private or in public? How important is presentation? What makes a good presentation? Lighting? Labeling? Stands, trays and props? How should collections be presented for shows or competitions?

Preservation and Storage:

What kind of cabinets, boxes, trays do you use? Do you monitor or control environmental conditions? What care and treatment do the shells get?

Equipment:

Any special tools or equipment? Cameras, stands or lights? Microscopes, loupes, forceps, dental tools, measures or calipers? Boats, dredges, diving gear, beachcombing gear, buckets, tanks, aquariums, water nozzles or footwear?

Reference materials:

What's on your bookshelf: Specialist references, general references, iconographies, tide tables, periodicals?

Acquisition:

Do you collect in the field or do you buy or trade? Does it make any difference? Do you travel abroad to collect? Do you go alone or in groups? How often? What collecting opportunities exist near home? How actively do you “work” on the collection?

The Specimens:

What do you look for in a specimen? How many is enough? Do you value Quality or Rarity or World Records? What does it take to reject a specimen? Do you keep placeholders? Do you cull specimens as you upgrade?

What Qualities does a Collector need:

Aesthetic Sensibilities? Opportunities? Knowledge and Experience? Money, Connections? Luck?

No matter what we collect, we find ourselves asking questions like these. This is the reason we form clubs. These are the supporting activities that keep us engaged with the objects of our fascination. We never ask *why*...

Good Collecting,
Terry Rutkas

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Las Conchas is a publication of the Pacific Conchological Club

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The Pacific Conchological Club was organized in 2003 as a result of the merger between the Pacific Shell Club and the Conchological Club of Southern California. Its mission is to further the interest in shell collecting and malacology and to provide a forum for individuals who love shells and other marine life. The Club meets on the second Sunday of each month from October through June at the Los Angeles County Museum of Natural History (900 Exposition Blvd., Los Angeles).

California Chitons; Visiting them at home (Part II– Southern California) *a continuing look at where our chitons live*

by Phil Liff-Grieff

In our last issue, we examined some of the common chiton species of Northern California. We are now turning our attention to some of our local chitons and where they live.

Southern California's rocky habitats are home to a fascinating collection of chiton species. To get a good sense of what lives here, we need to look at our seashore, one zone at a time. In general, we can divide our local chitons into two groups: Those to be found in exposed areas during the day and those that live under rocks during daylight hours.

On top of the rocks

The top of rocks in the middle to high intertidal zones is home to three common species throughout many parts of

Southern California: *Nuttallina californica* [(Nuttall MS) Reeve, 1847] *Lepidochitona bartwegii* (Carpenter, 1855), and *Mopalia muscosa* (Gould, 1846).

Nuttallina californica (below, left) is a medium sized (25 to 35 mm), slender species that is found on the top of rocks fairly high up in the intertidal. This chiton feeds on coral-line algae and frequently lives in pits that it has burrowed into softer rock.

Since this species lives in such an exposed habitat, it is regularly preyed upon by seagulls. Confining itself to these furrowed pits provides the chiton protection both from surf and the watchful eyes and sharp beaks of their pred-

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Nuttallina californica 24 mm



Palos Verdes rocky habitat during a minus low tide— home to many chiton species

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tor.

Most specimens of this species are extremely surf-worn and unattractive. In more protected localities, however, one can encounter unworn examples of this chiton with beautifully sculptured black or dark brown valves streaked with pink, tan and white (see photos). The girdle is somewhat narrow and completely covered with spiny spicules, often in light and dark bands.



Nuttallina californica [(Nuttall MS) Reeve, 1847] 28 mm
Whites Point, Palos Verdes Peninsula a different color form



Mopalia muscosa (Gould, 1846) 44 mm
Cabrillo Breakwater, harbor side, San Pedro, CA

Lepidochiton hartwegii is a medium sized (under 30 mm) oval chiton with valves usually colored greyish green, sometimes with longitudinal streaks of a darker green or black. The valves appear fairly smooth to the naked eye.

The girdle is light brown in color and seemingly devoid of the assorted spines, granules and other ornamentation associated with other local species.

This species is usually found under clumps of the brown algae, Rockweed (*Silvetia compressa*— formerly known as *Pelvetia fastigiata*) upon which it feeds. Most of the specimens of this chiton are also heavily eroded due to the normal stresses of their surf-swept environment.



Lepidochitona hartwegii (Carpenter, 1855) 26 mm
Palos Verdes Peninsula, Los Angeles Co., California

Also exposed during daylight hours, *Mopalia muscosa* prefers a calmer, somewhat protected environment. Specimens are extremely common, for example, on the harbor side of the Cabrillo breakwater.

Under the Rocks

If one were to turn over any of the larger rocks in the foreground of the picture at the bottom of page 2, one would encounter chitons. A good number of species spend their days on the underside of these rocks, waiting until the darkness of night to come out and forage for food.

When rocks are partially buried in fine sand, they provide the ideal habitat for *Stenoplax conspicua* (Pilsbry, 1892). In fact, it is not uncommon to turn over these rocks and find them home to a small colony of these huge chitons (reaching 90 mm). The valves of this species are usually a mottled

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Stenoplax conspicua (Pilsbry, 1894) 4 mature specimens on the underside of a rock from the locality pictured on page 2.



Stenoplax conspicua (Pilsbry, 1892) 73 mm
Bird Rock, La Jolla, San Diego County

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bright green with the central ridge usually worn to expose the pink interior coloration. The girdle of *Stenoplax conspicua* is somewhat sandy with spiny scales clustered along the edges of the valves.

Found together with the enormous *Stenoplax* is a medium sized chiton, *Lepidizona pectinulata* Carpenter in Pilsbry, 1893, (measuring 20 to 30 mm) and a tiny species, *Leptochiton rugatus* (Pilsbry, 1892), generally around 10 mm in size. The *Lepidizona* is also found on the underside and sides of rocks that are above the sand.

Lepidizona pectinulata is a heavily sculptured species with the girdle and the valves both honey brown or brown marked with black streaks. The girdle is completely covered with small oval scales.

Leptochiton rugatus is a white to cream colored species with smooth, rounded valves. Most of the specimens found at the pictured site are stained with black (see photo below).



Mopalia acuta (Carpenter, 1855) 62 mm
Cabrillo Breakwater, San Pedro, California

In and Among the Rocks

And then there are chitons that live in cracks, crevices and other locations protected from the sun. Along the Cabrillo breakwater, for example, one can find two interesting *Mopalia* species hiding among the rocks. The first of these, *Mopalia acuta* (Carpenter, 1855) is occasionally found at this site. This species has relatively flat valves and a wide girdle sparsely covered with fine hairs.

The second species, *Mopalia cf. lowei* (Pilsbry, 1918)** has extremely varied color patterns (see photos, below and to the right). Green and red predominate but white, pink, black and orange also can be found on this chiton's valves. The girdle is pink to tan in color and

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Lepidizona pectinulata Carp. in Pilsbry, 1893) 24.5 mm



Leptochiton rugatus (Pilsbry, 1892) Palos Verdes Peninsula 7.5 mm



Mopalia cf. lowei (Pilsbry, 1918) Cabrillo Breakwater 39 mm

Visit the Pacific Conchological Club on the World Wide Web:

pacific-conch-club.org



Mopalia cf. lowei (Pilsbry, 1918) 36 mm & 34 mm
Cabrillo Breakwater, San Pedro, California
Two additional color forms

covered with multi-branched bristles.

In addition to the few species highlighted here, Southern California's rocky habitats are home to many other interesting species. The collector or student of natural history has to simply stop and turn a rock or two and look carefully. While some of our chitons are 3 inches across, be sure to look for those that are only 10 to 15 millimeters in length. And, the real beauty of this group only comes out under magnification so be sure to examine your chitons with a lens or stereoscopic microscope.

Finally, it bears repeating the two pieces of advice printed in the first part of this series:

- 1) To enjoy the beauty of chitons, they must be prepared properly. For a detailed discussion of chiton preparation, refer to *Las Conchas*, vol. 35, #5 (February, 2004)- this issue can be obtained as a pdf.
- 1) Chitons live their lives in a highly restricted range. Please be careful not to over collect in any given area so as not to seriously impact the local faunal community.



****Author's note:**The identification of the species I've called *Mopalia cf. lowei* remains uncertain. Any input regarding a definitive identification would be greatly appreciated.

PLG

Minus Low tides provide great conditions for observing mollusks and other marine life on Southern Californian shores. Listed below are some minus low tides that occur during daylight hours:

(Please be sure that you are familiar with the California Department of Fish and Game regulations regarding the collecting of live mollusks.) For details, check out the club's website at pacific-conch-club.org.

April, 2006			May, 2006		
Date	Time	Ht.	Date	Time	Ht.
Saturday, April 1	5:20 am	-0.6	Monday, May 1	7:04 am	-0.6
Sunday, April 2	7:21 am	-0.3	Tuesday, May 2	8:09 am	-0.2
Friday, April 7	1:17 pm	-0.1	Sunday, May 14	4:59 am	-0.8
Sunday, April 16	5:46 am	-0.2	Monday, May 15	5:44 am	-0.8
Monday, April 17	6:36 am	-0.1	Tuesday, May 16	6:35 am	-0.7
Thursday, April 20	10:23 am	-0.1	Wednesday, May 17	7:33 am	-0.6
Friday, April 21	11:28 am	-0.2	Thursday, May 18	8:36 am	-0.4
Saturday, April 22	12:18 pm	-0.4	Friday, May 19	9:38 am	-0.3
Sunday, April 23	1:00 pm	-0.4	Saturday, May 20	10:35 am	-0.1
Monday, April 24	1:37 pm	-0.2	Sunday, May 28	5:10 am	-1.3
Saturday, April 29	5:17 am	-1.2	Monday, May 29	5:57 am	-1.0
Sunday, April 30	6:08 am	-1.0	Tuesday, May 30	6:45 am	-0.7
			Wednesday, May 31	7:35 am	-0.4

Finding the Unseen, a World Away

by Shawn Weidrick

As my collection has been growing, I seem to acquire a bountiful number of species from the micro-molluscan fauna. Recently, a friend of mine from college described to me his plans to visit several Caribbean Islands. He went on to inform me that the cruise he was taking would port at the Cayman Islands and Jamaica. I began to explain to him several techniques on how to find marine mollusks (under rocks, on rocks, in sand, etc.). With that, he was off on his cruise.

When we reunited after his trip, I was disappointed, to say the least. He handed me a paper cup with five juvenile *Cerithium litteratum* (Born, 1778), only one of which was in satisfactory condition.

Along with this were two or three valves of *Linga pennsylvanica* (Linne, 1758). I acknowledged his efforts and gave him a handshake to show my appreciation. Just as I was about to walk out the door, I looked back to see some sugary sand fall from between his fingers into a bag. "Oh, I got some sand too." My heart almost stopped as I raced over to investigate the material. I instantly told him I was going to take the sand home to look through it. He stopped me and confirmed the fact that I would return the sand when I was done. He gave me a puzzled look when I

told him I was just going to extract the shells and return the sand. I got home and sifted through what turned out to be about three-gallon sized freezer bags of sand.

Out of all that sand, I pulled out about a cup of fine gravel from Bodega Bay, Jamaica. Within this gravel I found quite a number of interesting specimens.

The rubble-loving Rissoidae in the sample included *Phosinella cancellata* Philippi, 1847 (Fig.1), *Zebina browniana* Orbigny, 1842 (Fig.2) and *Alvania auberiana* (Orbigny, 1842) (Fig.3). Another family that seemed to be quite abundant was the Vitrinellidae. Once again, this family mostly inhabits the gravel rubble. The specimen figured here, *Cyclostremiscus beauii* (Fischer, 1857) (Fig.4), are found throughout the Caribbean. Of the Cerithiidae, a couple of *Finella adamsi* (Dall, 1889) (Fig.5) turned up in the lot. The only sinistral species that showed up was a *Tripthora ornata* (Deshayes, 1832) (Fig.6). It's a bit unclear what this specimen is due to it's juvenile state, but I can only speculate that it is a *Nassarius albus* cp. (Say, 1826) (Fig.7). Most of the reference material that I used is well outdated and pictureless at best. Properly identifying some specimen is labor intensive and downright impossible with the books I have.

Olividae in this region are diverse and confusing, but I am assuming

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Figure 1

Phosinella cancellata
Philippi, 1847
5mm



Figure 2

Zebina browniana
Orbigny, 1842
3mm



Figure 3

Alvania auberiana
(Orbigny, 1842)
2mm



Figure 4

Cyclostremiscus beauii
(Fischer, 1857)
1.5mm



Figure 5
Finella adamsi
(Dall, 1889)
2mm



Figure 6
Triphora ornata
(Deshayes, 1832)
2mm

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this gastropod is a *Olivella rosolina* (Duclos, 1835) (Fig.8).

Finally, one of my favorite families, the Turridae. Once again, another rubble-loving family with beautiful sculpture and form. The two turrids that occurred in this particular lot were *Glyphoturris quadrata diminuta* C. B. Adams, 1850 (Fig.9) and *Pyrgocythara candidissima* (C. B. Adams, 1845) (Fig. 10). Several of the Pyramidellidae occurred including species from the genera *Odostomia* and *Turbonilla*. Both genera are extremely confusing due to the large number of species in the region and the lack of good references for identifying them. The closest identification I could arrive at was *Turbonilla haycocki* Dall & Bartsch, 1911 (Fig. 11).



Figure 9
Glyphoturris quadrata diminuta
C. B. Adams, 1850
4mm



Figure 10
Pyrgocythara candidissima
(C. B. Adams, 1845)
4mm

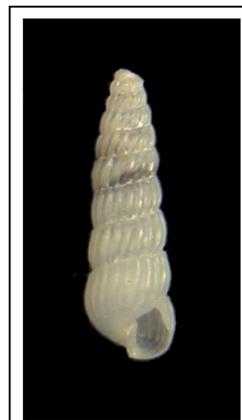


Figure 11
Turbonilla haycocki
Dall & Bartsch, 1911
4mm

The bivalves seemed to be more uncommon than the gastropods, particularly because the micro bivalves don't occur as frequently in this particular area. Nonetheless, I did find a valve of *Arcopsis adamsi* Dall, 1886 (Fig.12). Overall, I was quite satisfied with what turned up in the sand sample and it was astonishing to find so many shells in sand that was sampled by someone without any conchological knowledge.

The second location that he sampled from was(stay tuned for the part 2 in our next issue)



Figure 7
Nassarius albus
(Say, 1826)
4mm



Figure 8
Olivella rosolina
(Duclos, 1835)
4.5mm



Figure 12
Arcopsis adamsi
Dall, 1886
4.5mm

HOLD THE DATE

upcoming shell club meetings

Sunday, April 9

Sunday May 7th

NOTE: *This is the FIRST Sunday*

Sunday, June 11

Sunday, October 8

Sunday, November 12

Sunday, December 10

April Meeting: SUNDAY, April 9, 2006

1:30 pm — 4:00 pm

PROGRAM: Mary Stecheson, curatorial assistant of the LACM Invertebrate Paleontology Section will present

"Back to the Pleistocene by way of the Cretaceous", focusing on her Master's thesis research at California State University, Northridge and recent curatorial projects at the museum.

May Meeting: SUNDAY, May 7, 2006

1:30 pm — 4:00 pm

Location: Natural History Museum of Los Angeles County

900 Exposition Boulevard, Los Angeles (Exposition exit from the 110 Freeway— follow the signs). Park in the west parking lot or, if it is filled, in the pay lot immediately west of the museum (the pay lot will cost \$5).

Enter at the staff entrance which is located at the bottom level of the museum, on the left side of the main Museum entrance on Exposition Boulevard. The security guard can direct you to the Times-Mirror Room.

refreshments are potluck

Articles of interest to shell collectors are solicited for publication in this newsletter. Contents may be reprinted with credit being given to the Pacific Conchological Club.

Pacific Conchological Club

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DATED MATERIAL