

# Pacific Conchological Club

PACIFIC CONCHOLOGICAL CLUB  
**Las Conchas**

## Presidents Message

Once again I'm writing this at the last moment. It's been a busy summer and it starting to be a busy fall as well.

I did make some progress this year: we finally have a new web-site! Log onto [www.pacific-conch-club.org](http://www.pacific-conch-club.org) to see it for yourself.

We also have a new PCC logo. We reused the PSC graphic, designed in 1965 by Orval Blake, of the Kellet's Whelk, *Kelletia kelletii* and proceeded from there.

This month I report on the COA convention held at the Sanibel Harbour Resort in Florida. There were several PCC members attending.

We had never been to Sanibel Island before so we were eager to see what the fuss was all about. Actually there are two islands to see: Sanibel and Captiva. The pictures on this page are of the northern-most beach of the northern-most island, Captiva. I've never seen so many shells on a beach before! From the picture you can see

they're mostly bivalves. People we met on the beach had collected some nice shells, but it wasn't the best day. Someone told us "You should have been here yesterday. There must have been 500 fig shells just south of here." Kathy spent her time shelling while I got sunburned.

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I think we're starting off this season with a very unique program. Huell Howser's long running Public Television series featured Ralph Ferguson's shell shop last summer and we'll get to see the video.

Next month we have John Phillips lined up to talk about his life with

seashells.

This month, bring the shells you acquired this summer to the meeting. If you didn't get any shells this summer (impossible!) bring something you'd like to share with the rest of us.

Terry Rutkas

*ps "Sanibel" is a derivation of "Saint Isabel".*



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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).

## Rock-Eating Sleepy Mollusks: Israel's Peculiar Desert Land Snails

Phil Liff-Grieff

Snails, be they marine or terrestrial, need water to survive. Marine or freshwater gastropods swim in it and land snails carry their own moisture in their shell.

And yet, desert areas around the world are home to a wide variety of land snail species that have developed a series of adaptive behaviors and physical features that help them to survive the intense heat and severely limited access to food and moisture that is characteristic of these arid environments.

Israel is a country that contains a range of climatic zones similar to those found in Southern California; the coastal areas have a Mediterranean climate, the north of the country has slightly cooler mountainous climates and the south is an arid semi-desert transitioning into an extremely arid desert region in the far south.

The southern deserts, represented on this map as the areas

south of Jerusalem, can be broken into two approximate climate zones:

- 1) the Judean Desert & the central Negev stretching south from Jerusalem, with a rainfall between 200 and 70 mm a year, contains an abundant land snail fauna and
- 2) The southern Negev Desert with annual rainfall often much below 70 mm, is much less hospitable to molluscan life.

Over a number of years, I have made many visits to the central desert area, I am continually stunned to see the amount of shell material in evidence. In the area pictured below, for example, the foreground was strewn with dead shells representing five different species.

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Hikers resting on a trail in the Judean desert near Masada. This area is, surprisingly, a good example of a rocky desert land snail habitat.

*Israeli Land Snails (Continued from page 2)*

How do these mollusks survive in such a barren landscape? Where do they find water and food? How do they stay alive with daytime temperatures as high as the mid-90's and rain falling as sparsely as one to three weeks per year?

Studies of the behavior of one particular genus, *Euchondrus*, have shed some light on how they live, how they survive and, most surprisingly, the critical role these denizens of the desert play in the local ecology.

**LIVING ON THE EDGE**

20 land snail species reside in the central Negev desert, with 11 species being endemic to the region. Faced with high summer temperatures and low humidity, many of these snails conserve moisture by spending most of their lives buried in the sand or attached to the undersides of rocks.

Winter provides a slight respite. Daytime temperatures in the winter months range from 40 to 60 degrees and nighttime brings further cooling that allows for dew to collect on the rocks. In fact, the total amount of moisture derived from winter dew each year is equivalent to almost 1/3 of the an-



*Euchondrus desertorum*  
(Rochanaburananda, 1981)  
Nachal Luz, Israel 12.5 mm

nual moisture that arrives in the more traditional form of rain!

During the winter day, the snails avoid the sun and keep cool in their resting places, protected by the rocks they hide under. At night, when dew is present, they wander out from hiding to forage around on the rock surface.

This seasonal supply of moisture supports endolithic lichens— plants that live just beneath the surface of limestone rocks. These lichens function as the main food source for the small snails of the genus *Euchondrus*.

To get at their evening's meal, the *Euchondrus* snails must scrape through the surface layer of rock. Using their radula, they dig "trails" into the rock surface (see photo on page 6), consuming both lichen and rock particles each night that the dew permits them to roam freely.

This simple act of grinding trails in desert rocks actually provides substantial benefit to the local ecosystem. Grazing stimulates regrowth in lichen colonies, exposing new rock surfaces for the lichens to colonize. But, before the

*(Continued on page 6)*

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

**October, 2005**

Date	Time	Ht.
Wednesday, October 19	5:32 pm	-0.4
Thursday, October 20	6:22 pm	-0.1

*(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](http://pacific-conch-club.org).*

**November, 2005**

Date	Time	Ht.
Tuesday, November 1	2:49 pm	-0.1
Wednesday, November 2	3:26 pm	-0.4
Thursday, November 3	4:09 pm	-0.5
Friday, November 4	4:58 pm	-0.4
Saturday, November 5	5:57 pm	-0.3
Sunday, November 6	7:07 pm	-0.1
Sunday, November 13	1:33 pm	-0.2
Monday, November 14	2:15 pm	-0.6
Tuesday, November 15	2:56 pm	-0.9
Wednesday, November 16	3:38 pm	-0.9
Thursday, November 17	4:20 pm	-0.7
Friday, November 18	5:06 pm	-0.5
Saturday, November 19	5:56 pm	-0.1
Tuesday, November 29	2:03 pm	-0.3
Wednesday, November 30	2:41 pm	-0.7

**December, 2005**

Date	Time	Ht.
Thursday, December 1	3:22 pm	-1.0
Friday, December 2	4:06 pm	-1.1
Saturday, December 3	4:55 pm	-1.1
Sunday, December 4	5:48 pm	-0.9
Monday, December 12	1:33 pm	-0.5
Tuesday, December 13	2:15 pm	-0.9
Wednesday, December 14	2:54 pm	-1.0
Thursday, December 15	3:33 pm	-1.0
Friday, December 16	4:10 pm	-0.9
Saturday, December 17	4:49 pm	-0.7
Sunday, December 18	5:27 pm	-0.4
Tuesday, December 27	1:14 pm	-0.1
Wednesday, December 28	1:53PM	-0.7
Thursday, December 29	2:34 pm	-1.2
Friday, December 30	3:15 pm	-1.5
Saturday, December 31	3:58 pm	-1.6

## COA Convention 2005—Sanibel Harbour Resort

Terry Rutkas



From our hotel room on the Florida mainland, we can see Sanibel Island like a thin line on the horizon. The causeway between the two is virtually at the entrance to the hotel.

This was a great venue for a COA convention! The Sanibel Harbour Resort featured tasteful displays of decorative shells in their lobbies and I found two of the largest, most perfect *Charonia tritonis* (18+ inches) casually displayed in a corridor at the Spa – right next to two enormous (world record?) *Cassis cornuta*. This was a good sign. Less than a year ago hurricane Charley hit this place but now there are few signs of any damage except for the almost continually mal-functioning elevator, but this was just another opportunity to chat with all our new and old friends as we waited.

A number of PCC members and some other Southern Californians showed up. Kathy and I met **Don Pisor** at the airport as he was waiting for his wife **Jeanne's** flight to arrive. Don told us they were recently in New Guinea and he was scheduled to give a presentation at the Convention. We had arranged to meet **Matt Doi**, who went for the Fossil Field trip on the day before the convention. We were sure we'd run into him in at some of the events, unfortunately the COA registration said he only signed up for the first few days and we didn't get to see him. **Paul Kanner** surprised us after announcing that he couldn't show up. **John Jackson**, the publisher of *Australia's Spectacular Conchies*, was already coming and convinced Paul to come too. **Harry Bedell** was there, after recently visiting a large Caribbean Island which we will not name. Of course, **Marty Beals** came to wheel-and-deal and **John Phillips** was there to sell

at the bourse. **Hank Chaney** was there—after all, he is the current COA president—and his associate from the Santa Barbara Museum, **Daniel Geiger**, who was giving a presentation.

This year's convention grouped presentations by topic. The first day was dedicated to Shell morphology, why shells look the way they do. Another day was devoted to travel and shell collecting trips. One day was even devoted to *snails!* I liked all the presentations that I at-

(Continued on page 6)



Californians, Harry Bedell, Paul Kanner, and Terry Rutkas stop for a picture on the last day of the Bourse, only to meet again later, at the bar, to recover from shell shock.



S. Peter Dance spent the afternoon talking to Kathy Rutkas about everything except shells.



A conventioneer views an exhibit at the Bailey-Matthews Shell Museum. COA members attended an evening reception, hosted by Museum Director, Jose Leal: food, wine, shells and good company!



Henry Chaney (center) of the Santa Barbara museum and current COA President on the floor of the Bourse.



John Philips, Abbey Shells, tends his table at the Bourse.



Don Pisor models a necklace made from *conus* shell that he picked up on his trip to New Guinea. Don's slide presentation was backed by a table of artifacts he collected in the Sepik and Massim regions.



10,000 square feet of sea shells! Shell dealers from around the world displayed a mind boggling variety and quantity of shells for sale.

**COA CONVENTION 2005** (Continued from page 4)

tended but the one that sticks in my mind was **Tom Eichorst's** talk on *Nerites*, a most unusual family. Look for his forthcoming book.

One evening, a caravan of cars and shuttle buses flowed across the causeway (in the rain) to Sanibel Island for an Open House and Cocktail party at the Bailey-Matthews Shell Museum. Imagine a bunch of shell collectors drinking wine and running loose in a shell museum!

Our Keynote speaker was **S. Peter Dance**, conchologist, natural historian and writer. Many of us have at least one of his books. Rather than talk about shells, he made an amazing PowerPoint presentation about the Art of Seashell Illustration through the centuries. He also spoke about his latest book, *Out of My Shell*—interesting facts and anecdotes gathered in the course of writing other books about shells. Peter Dance was very busy that week signing books - overwhelmed by his admirers. Imagine

my surprise to find my wife, Kathy, in the atrium/lobby, having a private chat with him. They must have talked about everything except shells for about 45 minutes before I showed up. Peter Dance shared some fascinating insights with us about his career and experiences and his attitude to celebrity.

The week was capped by the usual two day Bourse, where shell dealers from around the world brought their best shells to sell and trade. I personally, showed some restraint this year, but there was one shell I really wanted. I'd just walked up to a dealer's table and saw *The Shell*, an extraordinarily colored *Cypraea tigris*. Just then, someone picked it up and asked the dealer "how much?" I didn't hear the price, but from the look on the guys face, I thought he'd put it down. The dealer must have seen the same thing because he made him another "special" offer, which I couldn't hear either. Well, he took that offer and I felt a twinge - it could have been mine if only... My attitude changed when I saw the buyer peel off five (5) one hundred dollar bills and hand them over.

## Israeli Land Snails (Continued from page 3)

Euchondrus venture out at night to consume their tiny quantities of rock and nitrogen-rich lichen, they defecate the remains of the previous night's feast— powdered rock and organic matter.

This process is repeated over and over again by large numbers of rock-eating snails every night when conditions are favorable. The end result is that, in an average year, the snails that live in one acre of the central Negev convert over 800 pounds of rock and lichen into nitrogen-rich soil. For comparison, one need only look at the other major source of desert soils, wind deposition, to find that the wind blows in only between 220 and 420 pounds of soil per acre per year.

The adaptations that a snail uses to survive in a harsh environment also help to keep that environment healthy. And we are, once again, reminded of what a complex and fascinating world we live in.

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## References:

Heller, J., Shablulei Eretz Yisrael, 1993

Heller, J., Deserts as Refugia for Relict Land Snails

Shachak, M & Jones, C. G., Desert Snails, Daily Grind, Natural History 8/94

Visit the Pacific Conchological Club on the World Wide Web:

***[pacific-conch-club.org](http://pacific-conch-club.org)***



Euchondrus with channels they have gouged into desert rocks seeking endolithic lichens— their basic food source.  
photo from *Shablulei Eretz Yisrael (Snails of Israel)* by J. Heller

# Pictures from Paul's Tank: Dinnertime

photograph by Paul Kanner



Periodically, we feature photographs of some of the Southern California mollusks that reside in Paul Kanner's magnificent cold-water aquarium. This month, Paul has supplied us an image of a muricid, *Pteropurpura macroptera* (Deshayes, 1839) drilling a San Diego pecten, *Euvola diegensis* (Dall, 1898). He reported that it took the took a few days for the macroptera to fully dispatch the pecten.

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*Pictured at right, a cleaned specimen of Pteropurpura macroptera.*



***We begin the program year with two local dealers, sharing with us their experience and more than a few stories about living a life amongst shells***

**October Meeting: SUNDAY, October 9, 2005**

**1:30 pm — 4:00 pm**

**PROGRAM: Ralph Ferguson**, of Ferguson's Shells

Recently featured on KCET's Visiting...with Huell Howser, Ralph will present the tape of the show and regale us with stories about his life as a dealer and collector

**November Meeting: SUNDAY, November 13, 2005**

**1:30 pm — 4:00 pm**

**PROGRAM: John Phillips**, of Tidelines and Abbey Shells

Sharing his story that begins with diving for abalone, John will present the life of dealer and collector— and, of course, plenty of shells!

**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.

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**DATED MATERIAL**