



## VOLUNTEERING IN THE PARKS, FROM A TO Z...

**A**lmost as soon as the first few county parks opened at Shark River, Turkey Swamp, and Holmdel in the 1960s, volunteers worked side by side with staff to cut our very first trails, help build infrastructure, and lead visitors on hikes, canoe trips and some of our earliest nature and historic programs.

As the number of parks and classes grew the volunteer program expanded, but the 'heart and soul' of these dedicated individuals remains the same. Today, more than 1,100 volunteers give their time, talent and energy to the parks each year, across an impressively wide spectrum of areas and activities.

*More than 1,100 volunteers give their time, talent and energy to the parks each year.*



Canoe programs were among the first park offerings. Volunteers like **Eileen Murphy** with staffer Ryan Kimble (left), and **Eric Dalton** and **Alexis Walsh** (right) have been teaching visitors how to paddle and launch since the 1960s.

Take a look at a few of the vital roles that park volunteers fill, and meet some of the special people who take on these positions year after year.

**Arts & Crafters:** Volunteering in the parks is not just for outdoor enthusiasts, there are many opportunities for those with artistic talent. Volunteer **Barbara Venanzini** (right), for example, works with pottery students at the Creative Arts Center each Tuesday.



**Beach Nesting Bird Monitors:** Monitoring and protecting the endangered Piping Plover, Least Tern and Oystercatcher is the special job of these volunteers. Here, **Eleanor Swanson**, **Bonnie Muir** and **Carol Fornwald** keep an eye out for nesting birds at Seven Presidents Oceanfront Park.



**Clean-Ups Along the Waterfront:** No matter how often our volunteers come out to clean up our river, bay and beachfront properties, storms soon take over and create another layer of driftwood and debris. After Sandy, many much larger items such as fuel tanks, docks, and boat parts washed ashore. Volunteers such as **Mandy Hintelmann** (front and center) joined about 30 others to help clear two park sites along the Navesink River at one of many post-Sandy clean-ups.



**Dune Grass Planting:** Grass-covered sand dunes protected many waterfront parks from more extensive damage during Superstorm Sandy. Here, volunteers (l to r) **Bill Murphy**, **Gerry Lingner**, **Werner Aehlich** and a dozen others helped out when dune grass re-planting season arrived last spring, to help us start over at Seven Presidents.



**Equestrian Program:** Volunteers who staff the Therapeutic Horseback Riding Program at Sunnyside Recreation Area contribute almost one quarter of all volunteer hours each year. Pictured (l to r, standing) are **Karen Gerber** and **Barbara Carroll** with program participant Ryan Paterno (seated) on a beautiful autumn day.



**Festive Grand Openings:** Introducing a new facility is a very big job and 11 of our most knowledgeable volunteers came out to help at the Fort Monmouth Recreation Center Open House. (l to r) **Elaine McColgan**, **Joyce Henry**, **Barbara Finazzo**, **Barbara Trouwborst**, **Victoria Gercher**, **Donna Hansen**, **Jim Henry**, **Barbara Eckert**, **Katha Larity**, **Ruth Gariepy**, and **Linda Hodgins**.



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**Greeters & Docents:** With a warm welcome and a smile, volunteers create a lasting impression at many special events. Volunteer **Janet Breslin** seen here at the Fair, is also a docent at the Manasquan Reservoir Environmental Center

**Historic Sites:** This local 4-H member and volunteer brought his sheep and animal expertise to share with visitors at Walnford Day.

**Ichthyology:** At the free seining program offered weekly at Bayshore Waterfront Park in the summer, staffers 'net' many things for visitors to identify. It's a good thing volunteers like **Catharine Harkins** are on hand to help them make sense of the usual fish finds, such as this puffer fish.

*The breeze, the trees, the honey bees –  
All volunteers! – Juliet Carinreap*

Source: quotegarden.com

**Join Us!** Thousands of area students, children, adults, retirees, church/corporate and community groups, men and women, families and friends, seniors, couples, and more come out each year to give back and help the parks while meeting new friends, sharing their talents or developing new ones! Many choose to volunteer in more than one area, like **Bob Randall** who helps with button making in the Park System tent at the Fair in addition to volunteering with the Senior Hikers Program.

**Kids Races, Games, Programs and Activities:** High energy needed! There are many volunteer opportunities for young people to work with children in the parks.

Here, a volunteer helps out with a children's camp at Deep Cut Gardens.

**Librarians:** If you thought books were the last thing you'd see in the parks, think again. Volunteers at the Deep Cut Gardens Horticultural Library **Dawn Nahory** (left) and **Liz Hesse** (right) work with park staffer Sue Henschel (center) to manage our collection of 4,000 books, plus periodicals.

**McLeod:** Volunteers receive extensive training with this specialized shaping tool and many others so they can help clear, route and maintain safe conditions on more than 130 miles of park trails. Here, **Trails Team** volunteers use a McLeod (center and right) to clear a trail.

*Volunteers are paid in six figures...S-M-I-L-E-S. –Gayla LeMaire*

Source: quotegarden.com

**Nature Programs:** Environmental education is integral to the Park System mission; many nature events are offered throughout the year. Here, volunteer **Patty O'Rourke** (and retired Park System Naturalist) staffs a water-education activity last Earth Day at the Manasquan Reservoir.

**Office Administration, Training & Instruction:** Each park area has its own 'go-to' volunteer, and for the Public Information and Volunteer Offices at Thompson Park that person is **Jim Henry**. In addition to his Garden and Pruning Team duties, he helps with event planning, designs wonderful promotional materials/videos, trains other volunteers, and (pictured) instructs youngsters during a garden camp.



**P**runing: Clippers and loppers in hand, this team of specialists make sure the trees and shrubs near buildings and parking lots are always manicured.

**Quill & Ink Calligraphy:** Colleen McMonagle may not have had this skill when she first began working, then volunteering, at Historic Walnford, but she certainly did after training from staff. She then passed this old-time talent along to park visitors at Walnford Day.

*Act as if what you do makes a difference. It does. –William James*

Source: quotegarden.com

**R**ace Attendants: As park neighbors, visitors, participants and volunteers Dan and Jeanette Lingelback (far left, second from left) have been supporting the parks for decades. Jeanette started volunteering as a trip leader in the 1980s and enjoyed cultural trips and outdoor activities with her family as well. Now in retirement, the couple works on the Garden and Trails teams, at the County Fair, and races and trips. Standing with staffers Rachel Cohen (center) and Allison Gibney (2<sup>nd</sup> from right) is volunteer Ralph Maratea (far right) who is also a frequent volunteer at park programs, races and trips.

**S**pecial Populations: Louise DelCollo (center), pictured here with Debra Kaiser (left) and Noelle Cashes (right), has been volunteering with the adult day program at Dorbrook for many years providing vital staff support.

**T**rails Team: More than 250 people have received the specialized training needed to work on our trails. They spend many hours in the parks clearing brush and pruning branches as well as installing structural elements such as water bars and transitional areas to help with drainage. If you enjoy the Park System trails for exercise or exploration, these are some of the folks to thank!

**U**dder Management (Cow Milking): This blast from the past connects to the present. Before joining the full time park staff (she is currently Site Supervisor at Historic Walnford), Sarah Bent began her career as a volunteer for Longstreet Farm. Skilled in both the agricultural and domestic arts (fostering baby lambs, operating a cider press, etc.) Sarah liked working with cows the best.

**V**olunteers Matter! Whether it's working a big event or performing a seemingly small improvement to a garden or trail, the Park System relies on its volunteers today more than ever. Here is a typical combination of workers you might find side by side at one of our events: (l to r) Park System and Friends of the Parks volunteer Harden Fowler, seasonal staffer and volunteer Dave Roche, Park System volunteer Alex Osnato, and full-time staffer Ann Marie Osnato.

**W**eeding & Clearing Brush: Dedicated volunteers put in so many hours at Deep Cut last season, they were able to tackle a new project by fall...clearing out the ravine beyond the greenhouse and walkway. (l to r) Kristen Kircher, Dave Nass, Andrew Antoniello, Susan Halle, April Qin, and Carolyn Giovanniello.

**X**-Country Skiing: Picture yourself here, helping others discover the wonders of winter sports in the parks. Volunteer Lois Lyons instructs this new enthusiast on an all-weather mat so he will be ready when the snow arrives.

**Y**outh & Student Programs: Volunteer opportunities in the parks begin at age 14, and many high school students find that learning about the outdoors is a great way to meet new people while getting the volunteer experience now required by many high schools.

**Z**ip Codes: Volunteers are not restricted to Monmouth County! In other words, the Park System welcomes volunteers from surrounding counties as well. Call 732-842-4000 ext.4283 or email: [Melissa.Kelly@monmouthcountyparks.com](mailto:Melissa.Kelly@monmouthcountyparks.com).



## A Multi-Project Approach to Protect Local Water Quality... **RESTORING RAMANESSIN BROOK**

The Ramanessin Brook is a 5-mile brook located entirely in Holmdel Township. Its headwaters originate at the PNC Bank Arts Center and Phillips Park, and from there it travels through forest, agricultural and residential areas until ultimately flowing into the Swimming River Reservoir. The Swimming River Reservoir, managed by NJ American Water, is a source of drinking water for more than 200,000 residents of Monmouth County.

According to the 2004 Integrated List of Waterbodies (NJDEP), almost every assessed waterway leading to the Swimming River Reservoir—Willow Brook, Big Brook, Yellow Brook, Mine Brook, the Swimming River and Ramanessin Brook—are faced with the same non-point source pollution impairments: fecal coliform and phosphorus. The area of Ramanessin Brook is characterized by soils high in glauconite which, when they erode, release phosphorus which in turn creates excellent habitat for fecal coliform bacteria. In order to remediate these pollutants, Monmouth County was awarded a \$1.38 million mitigation grant from the NJDEP Division of Watershed Management in 2007 to be spent on projects in the Ramanessin Brook watershed.

### Remediating Non-Point Source Pollutants at Three Sites

The overall goal of the project is to improve the water quality of the Ramanessin Brook using stormwater management and stream restoration to reduce non-point source pollutants. Since the watershed area for the brook is already substantially developed, it was determined that *retrofits of existing infrastructure* would be more beneficial than additional requirements on new development. Three individual project sites were identified based on effectiveness, access to site, cost, and maintenance: **Holmdel High School, Holmdel Village Elementary School, and Holmdel Park.**



Heavy equipment constructing bioretention facility at Holmdel High School.



Holmdel Village Elementary School, south rain garden prior to planting. Students planting rain garden plants to complete the project.



1. Because runoff from **Holmdel High School** is uncontrolled and there are large areas of unused open space, multiple stormwater best management

practices were installed. Water collected from parking lots and other impervious areas was routed from the existing stormwater pipes through diversion structures into new bioretention facilities.

2. At **Holmdel Village Elementary School** an asphalt area was removed from the school's courtyard, and four rain gardens installed, to better manage roof runoff. The courtyard was retrofitted with an outdoor classroom, rain barrel, tree plantings, and the gardens. Each rain garden was designed to reflect one of the four seasons with plants and flowers coming into bloom throughout the year.

Holmdel Park map showing Ramanessin Brook and remediation sites inside and outside the park.



3. **Holmdel Park** featured a number of projects that involved creating new areas designed to treat and infiltrate runoff, as well as stream bank restoration.

- **Arbor Lane Project.** Runoff from a small cul-de-sac off Holmdel Road near the arboretum was creating erosion and bringing sediment into the park's Lower Pond. Five drop structures were installed to 'still' the water as it descended a stream channel to a stilling basin, along with a rip rap channel to slow stormwater run-off from the cul-de-sac as it enters Holmdel Park.



Stormwater control structure being installed for the Arbor Lane Project at Holmdel Park.

- **Hilltop and Forest Edge Parking Lots.** Existing storm water systems on either side of the parking lots were retrofitted with biofiltration basins. These biofiltration systems are a special mix of soils and organic matter designed to infiltrate water, along with plants that absorb and capture runoff contaminants.



Grading of a bioretention basin is completed around an inlet structure at Holmdel Park's Hilltop Parking Lot.

- **Ramanessin Brook Trail-Stream Bank.** The 2.1 mile Ramanessin Trail leads from Roberts Road through the south section of Holmdel Park, following the course of Ramanessin Brook. There is a footbridge that crosses over the brook, taking visitors from Holmdel Park into the township's Bayonet Farm. This restoration project included stabilizing the banks of the stream with root wads, log vanes, crib walls, and bank pillows, as well as installing rock vanes to redirect the current to prevent undercutting and erosion of the curves in the stream.



Heavy equipment works on large wooden mats to protect the stream bed while placing large stones along the bank of Ramanessin Brook.



A close-up of the rock vane that will slow water during storm events, helping to prevent erosion.



BEFORE: Stream banks were completely eroded with an island of vegetation in the middle.

AFTER: The stream has been cleared, rock vanes are in place, crib walls line the banks, followed by 'pillows' of grass vegetation further up.



## Common Garden DON'TS

Diane Allen, Park System Horticulturalist

As we close our garden journals on 2013 and look ahead (I'll bet some of you have your seed catalogs already), let's review a few common garden gaffes to avoid in 2014.

### Mulch Volcanoes

These seem to be appearing with less frequency, but they're still out there with the potential to harm woody plants. (And, yes, I've seen shrubs up to their chins in mulch, too). Mulch is a good thing, but not right up against the bark because it leaves the tree susceptible to insects, fungus and rodents.

**Mulch is good for trees and shrubs, but not right up against the bark. Think donut, NOT volcano!**

Think donut and keep the mulch at least 6" from the trunk, leaving the root flare visible. For depth, 2-3" of hardwood/bark mulch or up to 4" of pine bark mulch is optimal.



**DON'T Create this Mulch Volcano. Instead leave 6" around the bark to form the shape of a donut.**

While we're talking mulch, you might want to forgo the ones with herbicide. The depth of mulch recommended above should be sufficient on its own to suppress weeds, assuming you've removed any existing ones first. Plus, herbicides may inhibit beneficial soil organisms. As for the color of mulch, that is a matter of personal taste. Many gardeners prefer a neutral backdrop to best show off their plants.

### Invasive Plants

Although few of us are likely to go out and purchase kudzu, there are plants available commercially that are almost as detrimental. Many were introduced with the best intentions, but have since become a problem. They've escaped from cultivation into the natural landscape, where they crowd out our native species and deprive wildlife of suitable habitat.



**DON'T Plant English Ivy (Hedera helix).** This aggressive evergreen vine grows in stages. Most often seen in the juvenile stage when the spreading/climbing stems produce no flowers, but have adventitious roots—it will root wherever they touch the ground! The adult stage, pictured here, produces shrubby, non-climbing growth with lobeless leaves and umbrella-like flower clusters in fall, followed by berries. Some people have a reaction to this plant, similar to poison ivy.

Some all-too-common examples of invasive plants to avoid include:

- Burning Bush
- Callery (Bradford) Pear
- Japanese Barberry
- Kousa Dogwood\*
- English Ivy
- Japanese Honeysuckle
- Purple Loosestrife
- Asian wisterias

\*Kousa Dogwood is host to the fungus Anthracnose, which kills off the native American Dogwood, allowing the Kousa to take over.

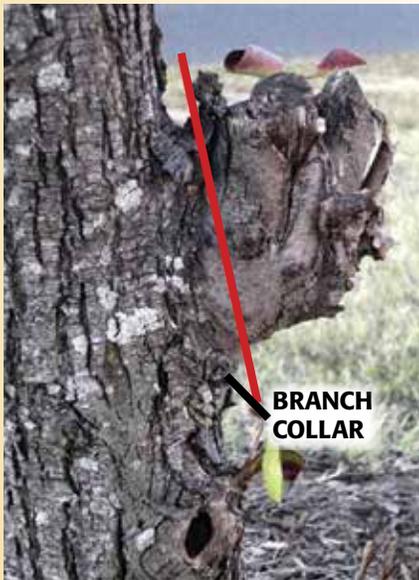
New Jersey is one of a few states without any laws prohibiting the sale of invasive plants, but you can help by becoming familiar with them. Several organizations publish 'invasive lists', in print and online. Also, the Brooklyn Botanic Garden has a handy little book with a list of native alternatives. The New Jersey Invasive Species Strike Team is a local non-profit organization with a wealth of information on their website ([www.njisst.org](http://www.njisst.org)), including their "Do Not Plant List".

## Improper Pruning

Pruning can increase the vigor and beauty of your plants, but improper techniques and timing can have the opposite effect. Dead, dying or diseased branches can, and should, be removed at any time. Otherwise, generally speaking, pruning is best done when trees and shrubs are in their dormant state. Generally, this is during winter, but there are exceptions (such as hydrangea—which should not be touched after August) so determine and observe the best timing and techniques for each plant.

**Prune trees and shrubs when they are in their dormant state, usually during winter (but there are exceptions, so please check!).**

Pruning at the wrong time can cause excessive 'bleeding' of sap or loss of flowers or fruit. Plants, like people, have the ability to fight infections and heal wounds. To facilitate this, prune just above the branch collar (see photo) where there is a natural defensive barrier. Do not leave a stump, it is an invitation to rot and disease. Also, do not cut flush with the trunk, it inhibits the tree's ability to heal over.



**DON'T Prune Incorrectly.** This tree is making a valiant effort to send out new growth from the stump. But there is also dead wood visible, which could rot and spread to the rest of the tree. Note the branch collar (marked).

As for the black tar wound dressing – don't bother. It is more likely to trap excess moisture and encourage rot. The tree will heal better without it. One important exception is newly pruned rose canes. On these you may wish to put a dollop of white glue to prevent the entry of rose cane borers until the plant has sealed off the wound.

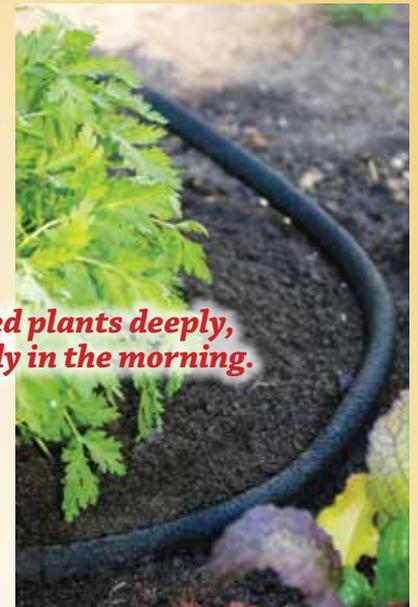
## Improper Watering

Irrigation errors probably account for more plant stress, disease and death than any other factor. Shallow, frequent watering encourages the development of a shallow root system, vulnerable to the slightest dry spell. Plants growing in waterlogged soil are unable to absorb oxygen, eventually causing root damage and decay.

For most established plants, deep watering once week is recommended, preferably with drip irrigation or soaker hoses that water the soil while keeping the leaves dry.

**Water established plants deeply, once a week, early in the morning.**

The best time of day to water is early morning, so plants are well hydrated during mid-day heat. Late afternoon is second best, as long as the leaves have time to dry before evening to avoid fungal disease.



**DO opt for drip irrigation and soaker hoses.** They wet the soil but keep the leaves dry.

## Rock Mulch

We get quite a few calls on our Horticultural Helpline (732-671-6906) about distressed understory trees such as dogwood, Japanese maple, and rhododendron and often find out they have been mulched with rocks ... with the best of intentions. The natural habitat for these trees is in or at the edge of a forest, where the layer of leaf litter keeps the soil moist and cool.



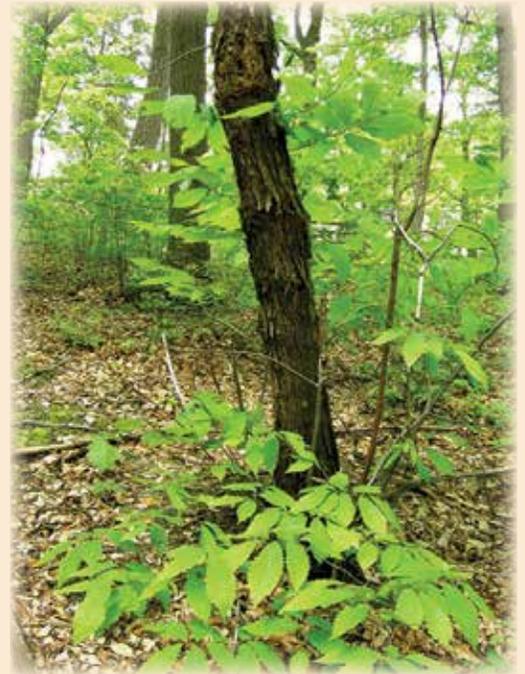
**DON'T mulch trees with rocks.** They retain heat, raising soil temperatures and evaporating moisture.

Rocks, on the other hand, absorb the sun's heat during the day and radiate it even in the cool of evening, raising the overall soil temperature and evaporating moisture. Also, as time goes on, even with landscape cloth beneath the rocks, silt and debris will accumulate among the stones, where weed seeds can – and will – gain a foothold.

Gardens are always a work in progress, as are the gardeners themselves, learning and growing with each new plant, pest or environmental challenge. To further that growth, remember that the Monmouth County Park System has a reference library (Mon.-Fri. 9am-3:30pm) at Deep Cut Gardens consisting of over 4,000 books on horticulture and related topics, as well as horticultural magazines and seed catalogs.

# 'PURE SEED' CHESTNUT RESTORATION

The American Chestnut blight is a fungus that wiped out almost all the US adult Chestnut population within 50 years of its accidental introduction from Asia around 1900. Working with chestnut foundation volunteers, park ecologists and Deep Cut Gardens staff have been planting 'pure seeds' gathered from diseased but surviving American Chestnuts in the area. The thought is that any local Chestnut that's diseased but still alive and producing seed, may have some type of natural survivable resistance to the disease that may be passed along to the next generation. NOTE: This project is different from other restoration efforts, here in the park and elsewhere, that involve 'crossing' American Chestnuts with disease-resistant Chinese Chestnuts (creating hybrids), in the hope of genetically transferring resistance to the disease.



*Diseased but surviving Chestnut.*



*Chestnuts drop their seed in autumn. They are collected and stored in refrigeration over winter for planting in the spring. This seed has already started to germinate (that's the root [radicle] sticking out).*



*This past May, Deep Cut Gardeners Beverly DeFelice (pictured) and Donna Baginsky planted a few dozen seeds provided by chestnut volunteers. The seedlings will grow in a protected environment for up to a few years before being transplanted to Deep Cut's Chestnut Grove.*

## Photography Exhibit

### *Off the Beaten Path at Deep Cut Gardens*

**Mondays-Saturdays, January 6-31**

**10:00am-3:00pm**

This year's exhibit showcases the hidden treasures of Deep Cut Gardens through lesser-known aspects of the park, or the familiar from a different perspective.

## Opening Reception

**Saturday, January 4 from 1:00-3:00pm**

Meet and speak with the photographers. Light, warming refreshments. No fee or registration, but please RSVP by calling the park at 732-671-6050.

# It's TIME TO ....



## January ✓

- Throughout winter, check for winter mulches and plants displaced by the weather and replace as necessary.
- Gently remove snow from evergreens to prevent damage.
- Remember the birds – fresh water is essential; seeds and suet will provide nourishment as natural food supplies dwindle.
- Increase humidity around houseplants by setting plants on pebble trays or grouping them together.
- Test leftover seeds for viability by placing several between moist paper towels or coffee filters and keep warm and moist.
- Clean and oil your garden tools now to have them ready for spring and add years to their life.
- Pot up some paperwhites – these will bloom within 3-4 weeks and don't require the chilling period most other bulbs require.
- Remove amaryllis flowers as they fade, and the stem when it has yellowed. Place the plant in bright sunlight and treat as you would any other houseplant, watering and fertilizing as needed.



*Remove snow from evergreen tree branches.*

## February ✓

- Turn the soil in your vegetable and annual beds now to expose insect eggs to foraging birds and the ravages of winter. Next month, add well-rotted manure or compost, if not done in the fall.
- Keep foliage of houseplants dust free and stay on the lookout for insects. Feed any plants that are actively blooming or showing new growth.
- For a taste of spring, force branches of flowering trees or shrubs like forsythia, cherry, apple or quince.
- Insect and disease control is important for fruit trees – pesticide recommendations and spray schedules are available from the Rutgers Cooperative Extension Service 732-303-7614 or online at [www.njaes.rutgers.edu/garden](http://www.njaes.rutgers.edu/garden).
- On a mild day, begin pruning trees and shrubs, start with damaged branches.
- When the snow has melted, sow an early crop of spinach.



*Cherry blossom branches can be 'forced' to bloom inside.*

## March ✓

- Fertilize trees and shrubs, if not already done, after soil temperatures have reached 40° F, but before new growth begins. Apply dormant oil spray on a calm day above 40°.
- Indoors–start seeds for broccoli, cabbage, cauliflower, eggplant, lettuce, parsley, peppers and tomatoes.
- Outdoors–sow seeds for cool crops like peas, beets, Swiss chard, lettuce, and cold-tolerant annuals.
- Don't work the soil until it will form a ball that crumbles when pressed with your thumb.
- If not done in the fall, get a pH test and apply lime if needed.
- Divide and transplant perennials as needed, fertilize established ones when new growth appears, pot up extras to bring to the Deep Cut Spring Perennial Swap on April 26.
- This is a good time to take note of any areas of poor drainage.



*One of the first signs of spring, a crocus in March.*

# CORNER

# NATURE

## BEACHCOMBING ON A WINTER DAY

By Joe Reynolds, Sr. Park Naturalist, Bayshore Waterfront Park

Winter and spring are actually two of the best seasons to go beachcombing. The coastline from Raritan Bay to the Manasquan Inlet is full of potential if you are looking for natural treasures in the sand.

Cold weather means there are fewer beach visitors to take home interesting finds. Plus, the machines that rake or clean the sand (and inadvertently remove shells and artifacts) don't operate during the winter.

**Winter storms expose treasures hidden in the sand and wash up curious remains such as bones and casings.**

Most importantly, winter storms and nor'easters help scour the beach. This will expose older shells underneath the sand and wash up the remains of unseen life including fish bones, empty egg cases, and vacant dwellings from sea urchins, snails, clams, and coral.

Coastal remains that are washed ashore by high tides and churning waves are vestiges of an underwater environment that is often unseen. Here are some curious finds discovered by naturalists during winter and early spring at Bayshore Waterfront Park, Seven Presidents Oceanfront Park, Fisherman's Cove Conservation Area and other nearby beaches.

### Bodies of Seahorses & Pipefish

Northern lined seahorses live in the shallow coastal waters of Monmouth County. Since seahorses are poor swimmers, you may find a few carcasses washed up after a particularly harsh storm.



Seahorse



Pipefish

Northern pipefish are stretched out, slender fish related to seahorses. Just like their cousins, pipefish live in shallow waters and their remains might also wash up after a storm.

### Outer Skeletons of Sea Urchins, Sea Stars, Sponges, and Coral

Purple sea urchins are small, round creatures with a hard exoskeleton that resembles a pin cushion. When alive, it is covered with spines that help to hold the urchin in place during strong waves. The spines often break off soon after the urchin dies, leaving rows of bumps and pin-sized holes.



Purple Sea urchin



Sand Dollar

Sand dollars are small disc-shaped animals closely related to sea urchins.

Tiny dark hairs cover sand dollars when alive. After being tossed around in the surf and bleached by the sun, these grayish-white skeletal remains are all that is left on the beach.

Common sea stars, formerly known as starfish, are spiny-skinned sea creatures with five pointed arms. They are commonly found after storms, washed up on the beach near shallow, pebbly areas and jetties, pilings, and shellfish beds.



Sea star



Red Beard Sponge

The red beard is the most common sponge along the coastline of Monmouth County. When alive, its body is bright red or orange. After it dies, this sponge dries to a brownish-gray color.



Dried Red Beard Sponge

Northern star coral is a cold water coral and the only native coral found off the coast of New Jersey. It does not form reefs as many tropical species do, rather this type of coral attaches itself to stones, shipwrecks, and other smooth objects. Soon after it dies, bits and pieces of skeletal remains are found on beaches.



Northern Star Coral

## Empty Egg Cases

The next time you find an empty whelk shell on the beach, try holding it to your ear. What you hear is not the sound of the ocean, but the hum of air moving around and in the shell. Whelk egg cases are produced by females during reproduction. They squeeze out a long, rubbery case called a Whelk Egg Case, which looks like a series of disks attached to a string. Each disk contains 20 to 100 eggs inside; though when found the eggs have often hatched out.



Empty Whelk Shell



Whelk egg cases



Whelk Egg Case, close-up

### Beachcombing Tips for Winter & Spring

Bring a seashore field guide book to identify what you find.

Go beachcombing during low tide when there's more beach to explore.

Dress in layers, and be prepared for cold temperatures and wind. Bring a thermos of hot chocolate or tea to keep warm.

Use an old cloth bag or pail to collect your finds. Never bring a plastic bag, as the wind will easily blow it away.

Try to visit the same beach every winter so you get to know its profile and where many of the best finds wash up.

*There is never enough time to search an entire beach before the tides change or the sun sets, especially if you live some distance.*

*Be prepared to come back another day to scan the shore for treasures.*

Moon snails get their name because their shell is round, smooth and shaped just like the moon. Unlike whelks, moon snails do not make long egg cases, but delicate sand collars. Millions of grains of sand are cemented together with mucous from the snail to form a sand collar egg case. Onto this, several thousand eggs are laid.



Moon Snail



Moon Snail Sand Collar

Skates are wide, flattish, non-bony fish, similar in appearance to rays. Their decomposing bodies are common finds on a beach. Unlike rays which give birth to live young, skates lay small, black leathery egg cases during reproduction. Similar to a chicken's egg, there is only one little skate inside each egg case. Some people refer to the empty case as a 'mermaid's purse'.



Skate



Skate egg case

### Fish Bones and Skulls

Mysterious looking skulls, bones, and vertebra are often found washed up on the beach from recently deceased fish. Sometimes the bones are easy to identify by looking at what local fishermen are catching, such as Striped Bass or Winter Flounder. Other times, the skeletal remains are peculiar and strange looking; evidence that there is more going on in the sea than most people know. Pictured are a bluefish skull, vertebra from a striped bass, and a backbone from a small tuna fish.



Bluefish skull



Backbone from a small tuna



Vertebra from striped bass



# GREEN HERITAGE

805 Newman Springs Road, Lincroft, NJ 07738-1695

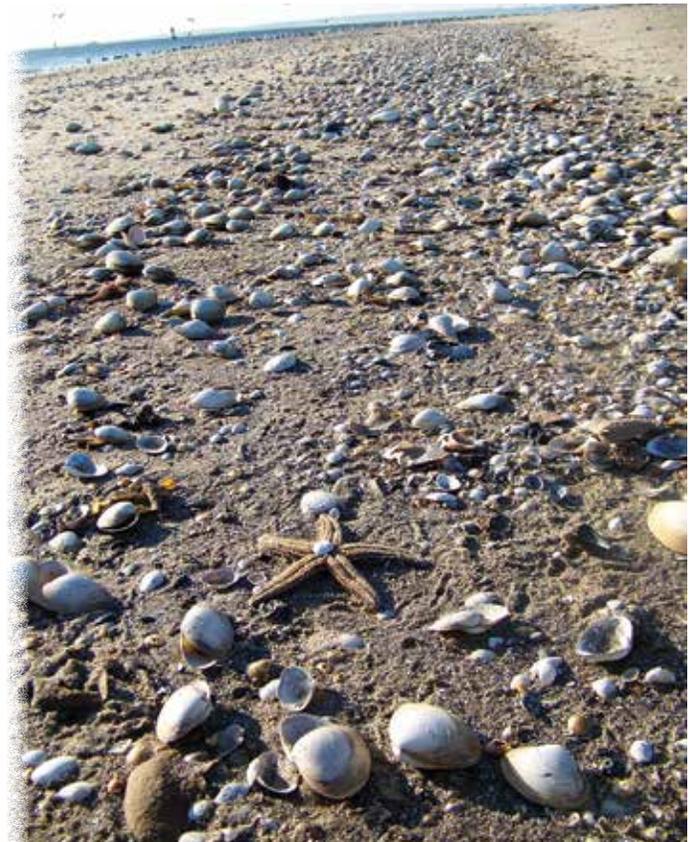
Volume 47, No. 4 Winter 2013-14

G13572-11/13

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## SCENES FROM A WINTER BEACH

*Winter storms kick up the sand, revealing plenty of unusual finds along the coast. See what's in store for the winter beachcomber inside on pages 10-11.*



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