

# Tortoise Group News

Volume XXVII No. 2 May 2014



Guelph (named after the Canadian city just outside Toronto), is a newly-adopted tortoise enjoying his new home in Henderson, with his custodians Earl and Dominique.

To see a video of Guelph chomping down on this delicious rose, go to <http://bit.ly/1orNp3t>

## Adoptions planned for northern Nevada

Desert tortoises are moving north. No, it's not a mass exodus of the wild reptile, nor is it a response to climate change. Tortoise Group is expanding its adoption program to northern Nevada, beginning in June.

Almost 100 people in Reno/Carson City have expressed interest in adopting desert tortoises. And, with too many tortoises and not enough homes to place them in, heading north to place them with willing custodians helps everyone.

People that expressed an interest are being contacted, and two workshops

are planned. The first is in Reno, Saturday, May 31, from 1 to 2:30 p.m., at Horseman's Park Clubhouse, and in Gardnerville, Sunday, June 1, from 1 to 2:30 p.m. at Cooperative Extension Conference Hall.

The program is being assisted by the US Fish & Wildlife Service and, if successful, Tortoise Group could facilitate adoptions state-wide.

The Reno Tur-Toise Club is helping with many aspects of the program.



Around 35 Tortoise Group members paid a visit to the spectacular garden of landscape designer Norm Schilling on April 12.



**TORTOISE GROUP**

A non-profit, 501 (c)(3) organization since 1982

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## A new look

The May issue of the newsletter is my first as the new Executive Director at Tortoise Group.

First of all, I'm really excited to be here (although people keep telling me about "the summers" with a glint in their eye). I'm also enjoying meeting people, and helping out with the newsletter. It's not only an opportunity for me to (finally) put some of my background in communications to good use, but also to learn more about what happens at Tortoise Group, and the many people involved.

I hope you like the new format for the newsletter, which is part of our new plan and redesign. And, of course, if you have suggestions or would like to have something included in future issues, please contact me, or Kathy. Our contact information is on the back page.

My first month has been busy. But, that's a great thing. It means Tortoise Group is busy, and we want that to continue to be the case in the future. We've already added a staff member, Janina Little, who is our Adoptions Coordinator. That's a position that just became a whole lot more complicated, too, as we're adding adoptions in northern Nevada to the list of things we're doing.

It's the time of year when tortoises are emerging from their burrows, adoptions are starting to happen, and we're attending events to spread the word.

We always rely on your support, in so many ways, and hope you'll be along for the journey as we chart new territory, with the ultimate goal being a home for Tortoise Group, complete with adoption wing, exhibits and meeting space.

We can't wait to get started!



*Jim Cornall*  
*Executive Director*  
*Tortoise Group*

## MegaDiet RF Sellers

Please call sellers for appointment. All are 702-area code unless otherwise noted.

Check [map online](#) for seller locations

### 33% discount to TG members

Nellis & Owens	Georgi – 459 -1274
Ann & Camino al Norte	Don – 374-2466
Durango & Grand Teton	Cathy – 339-5012
Craig & Cimarron (new)	Annie – 306-5096
Decatur & Gowan	Toni – 277-6179
Smoke Ranch & Michael Way	Julie – 245-4671
215 & Far Hills	Kathy & Pauline – 804-0472
Rainbow & Charleston	Jamie – 232-6289
Charleston & Casino Center	
	Trilla at Ace Locksmiths: 528-2237
215 & W Tropicana	Athena – 682-0307
215 & S. Decatur	Carolyn – 534-7888 x824 378-6514 cell
Russell & Pecos	Sherri– 339-9821
SW of I-15 & Blue Diamond (new)	
	Michelle – 468-0162
Russell & Nellis	Cindy – 530-9052
Boulder Hwy & Equestrian	Carm – 451-3245
215 & 95 at Van Wagenen	Peggy – 281-3048
Boulder City	Carol – 293-6494
Pahrump	Sheri – (775) 727-5557
Kingman, AZ	Toni – (928) 757-8317

You can also shop at our [online store](#)

No computer? Call Susan at (702) 458-8382

### Business Locations

(Member price not available—tax added to price)

<i>Creature Comforts Animal Hospital</i>	658-7339
Ann Rd and US95	
<i>Lone Mountain Animal Hospital</i>	645-3116
Rainbow & US95	
<i>Aloha Animal Hospital</i>	567-5222
S Torrey Pines & Warm Springs	
<i>Moon Sun Landscapes</i>	645-2032
Russell & Boulder Hwy	

# Time for eggs

In May and June, your female may lay eggs, whether or not she has been with a male lately. Here's why:

- Like chickens, some females lay infertile eggs all their lives.
- Females can store sperm for up to 10 or 15 years!

## What should I look for?

Just before laying, your female may act differently. She may not eat normally, and she may cruise the yard and dig test holes before she actually lays. A favorite spot for the nest is at the entrance to the burrow.

If you have the honor of watching her lay, you will notice that she doesn't mind your company. The process may take several hours during which she will dig the nest, deposit one egg at a time and carefully pack dirt around it. When she is finished, she may urinate on the top and walk away. Her job as a mother is done! [Watch a video of egg laying on our website.](#)

## Watch for problems

If she repeatedly digs nests and appears to strain and no eggs emerge, you'll want to take her to the vet to see if she is eggbound. This is a serious health situation that the vet may be able to correct. If left unchecked, it could be fatal.



Tortoise eggs are about the size of ping-pong balls, and slightly oval.



Tortoise Group was one of dozens of organizations invited to the Science and Technology Expo held at the Cashman Center May 3. Almost 700 people visited the booth to learn about adoption, tortoise care and plants appropriate for backyard tortoise habitats.

## Problems with back-yard breeding

Back-yard breeding **does not** help the desert tortoise recover in the wild. While back-yard breeders may have the best of intentions, they are not helping the wild desert tortoise population.

With good food and protection hatchlings soon breed, creating a greater problem. Tortoises in captivity multiply quickly and then need homes, as it is illegal to put a pet into the wild, for a variety of reasons, including the danger of introducing diseases to the wild population.

The scenario is all too familiar. People relocate for work, and as people age, they may need to move to smaller homes, or people die and leave their loved ones with an unfortunate situation they can't always handle.

This has been highlighted by the recent passing of three former tortoise custodians, which has

added almost 60 more tortoises to the number in need of new homes. In all three cases, the deaths have led to the surviving family members no longer having an interest, desire, or ability to look after that many tortoises.

This year, there are no options for unwanted tortoises other than to be adopted. The Desert Tortoise Conservation Center is no longer accepting tortoises, as it will be closing at the end of this year due to funding issues.

As we know, tortoises live for a long time, usually longer than those breeding them. Adopting a tortoise is a big commitment, and breeding them with no thought for the future is irresponsible.

**Please spread the word that tortoise breeding causes hundreds of unwanted tortoises every year. There is no place for them to go.**

# ALIENS INSIDE MY TORTOISE?

This article was first printed in 2012, but as it contains some great information, we are reprinting it to emphasize how important your tortoise's diet really is.

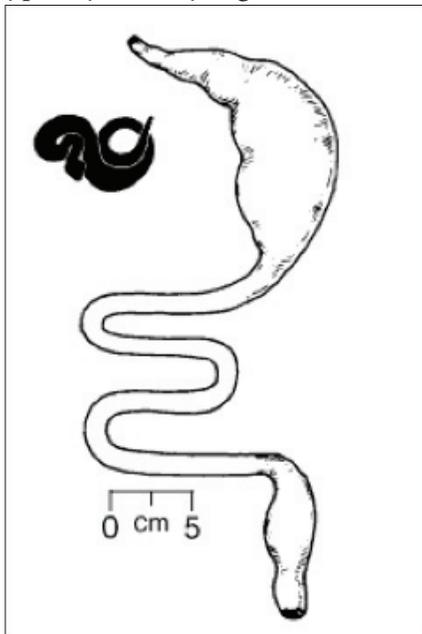
**Note:** Jennifer is our speaker at the June group meeting

**By JENNIFER PARSONS**  
ASSOCIATE NUTRITIONIST  
SAN DIEGO ZOO GLOBAL

Aliens inside my tortoise? Well, not exactly. But inside every desert tortoise is an entire community of tiny creatures, doing a very important job.

Desert tortoises are a type of animal referred to by nutritionists as “hindgut fermentors.”

This group includes familiar mammals such as horses and rabbits, as well as more exotic species such as elephants, koalas, and many species of tortoise. These animals typically eat very high-fiber diets in



their native habitat. Interestingly, no vertebrate digestive enzymes exist that can break down the tough molecules in plant fiber.

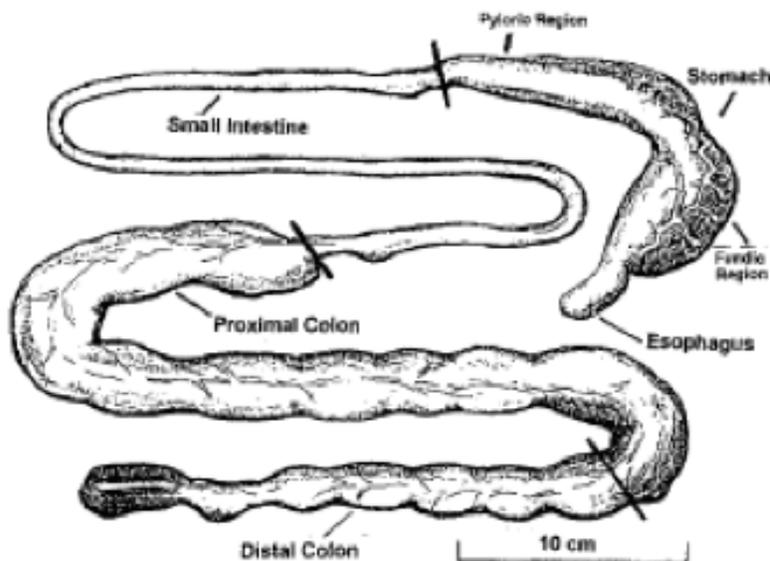
But we also know that wild horses, elephants, and definitely tortoises can exist quite well eating grass all day. They do it by getting a little help from their friends: over thousands of years, these animals have developed a symbiotic relationship with fiber-digesting microbes that live in their digestive tract.

It is actually the microbes that digest the fiber and release byproducts that their host can absorb from the gut to use for energy – this is the



process of fermentation and, as the name implies, it's similar to the transformation that takes place in a wine cask (just with different end products).

When the microbes reach the end of their life cycle and die, the host also digests the microbes, a rich source of protein. So the tortoises provide a



Digesting the fiber of a desert tortoise diet is a much more difficult process than digesting meat. Compare the very simple digestive tract of the rattlesnake, a carnivore (left), to that of the tortoise, an herbivore (right). The large intestine (proximal and distal colon), is much longer and sacculated (wrinkly), providing a home for symbiotic, fiber-digesting microbes.

From Barboza, P. (1995). *Digesta passage and functional anatomy of the digestive tract in the desert tortoise (Xerobates agassizii)*. *Journal of Comparative Physiology B* 165: 193-202.

This symbiotic relationship has several important implications, because the key to a healthy tortoise is keeping those microbes happy. This means providing the sort of diet to which both the microbes and the tortoise are best adapted – since this relationship is the result of thousands of years of keeping each other's company.

It is true that, because of their much shorter generation time, the microbes can change over time – for good or ill – to differences in diet. However, the microbial products that the tortoise depends on do not change, so providing the right nutritional environment is key to making sure this microcosm is happily churning out the right stuff for your tortoise.

What does the right nutritional environment look like? Some things to keep in mind:

- Foods with a lot of sugars or starches can be a problem, as these are actually too easily digested. This might seem like a good thing at first, but in this case it also means that they are very readily fermentable. In short, when the microbes get hold of these types of foods, they have a party – and not in a good way for the tortoise. They start overproducing two of their main byproducts – acidic compounds,

and gas (think about what's produced in a vat at a brewery). If these products are generated more quickly than the animal can deal with them, they can build up in the gut. In horses, this is called colic, and if it's bad enough, can have serious health consequences. The same can happen inside your tortoise if it's allowed to indulge in these foods (like fruits and sweet, starchy vegetables such as yams or carrots).

- It is also important to remember that, although the microbes can adapt to changes in the tortoise's diet, it takes them time to do so. Any sudden changes in diet can upset the balance, and at the very least mean that there is not an optimal microbe community in place to efficiently break down the diet. So the best tortoise diet is one that is similar day-to-day. There

can be several components to the diet (who doesn't like variety?), but the key is to, for the most part, provide those same components in the same proportions every time you feed. Occasional treats are all right, but they should be used in small quantities, so the balance is not upset. If you do need to change your tortoise's diet for any reason, it should be done gradually, over a week or more.

- At the same time that we're feeding our tortoise, we also need to be mindful that we're feeding the microbes – and if we don't provide the microbial community with what it needs, it could begin to starve and die off, leaving the tortoise poorly equipped for efficient digestion. What do the microbes need? Fiber! They love the stuff – they're built for it. So a good tortoise diet is one that

provides a lot of fiber. This can be in the form of a good quality pellet, or supplemental hay. Fibrous native grasses are a good option (just not ones that are too green or lush – or we get back into the problem with easy fermentation).

It's an amazing little world that exists inside our desert tortoise friends, and a marvelous example of two completely different types of creatures coexisting with each other. Following these guidelines will help ensure a happy, healthy tortoise – all thanks to its resident "aliens."



Soak a tortoise every month in tepid water to assist with digestion and elimination.

# Spring behavior

BY KATHY UTIGER  
TORTOISE GROUP

## Eating

Tortoises eat everything during this glorious spring weather. My tortoise is feasting on dandelions, grape leaves, hollyhock flowers, petunias, globe mallow, gazanias, Mexican evening primrose, and just now yellow evening primrose is starting to blossom. He rests in the cool shelter of his grape leaf house, where he can lean over and snack on leaves.



Tad devours grape leaves and hollyhocks.

## Flaking skin

Tortoise skin often curls and flakes on the neck, especially with fast-growing hatchlings. Even though you are tempted, do not pull off the flaking skin.

## Handling a Female

Be careful to not turn a female tortoise upside down, in case she has eggs in the oviducts that could become twisted. This could lead to her being eggbound.

## How much MegaDiet RF to feed

We recommend feeding MegaDiet 2-3 times per week for adult tortoises, more often for little ones. It's not healthy for a tortoise to grow rapidly. Allow yours to browse and become independent. I give my big male about 2 dry tablespoons each time, served as a juicy mash.

## Vacation time

If your tortoise is used to browsing, it can get along just fine while you are gone for a week or even two. Have someone stop by to check and feed some MegaDiet RF occasionally.

## Weighing and Measuring

Tortoises grow all their lives, and it's fun to watch them over the years. Keep a log of the weight and length of the shell spring and fall.

# Calendar of Events

## May 17

"Overview of the Clark County Multiple Species Habitat Conservation Plan and Conserving the Desert Tortoise"

by Marci Henson, Assistant Director of Comprehensive Planning

How has Clark County worked to protect our many fragile species since the tortoise was listed as Endangered in 1989? What impact have we seen on the species, the desert, and the pocketbook? Here's your chance to ask those tough questions of the woman who knows the answers!

## June 21

"New Studies on Tortoise Foods"

by Jennifer Parsons, Nutritionist, San Diego Zoo

An overview of wild tortoise feeding ecology and how the amazing tortoise digestive system works. Also, a summary of best feeding practices and a look into nutrition and feeding. This one is packed with information you won't want to miss!

## July 19

"Creating and Upgrading a Tortoise Habitat"

by Kathy Utiger, Tortoise Group Chairperson

## August 16

"Solar Development in Nevada"

by Jim Moore, The Nature Conservancy

## September 20

TBA

MegaDiet RF in the regular bag and the 10# sack and other tortoise items are for sale at all meetings. Note: Original MegaDiet is no longer available. Credit Cards are accepted.

## All General Meetings run from 1-3 p.m.:

Las Vegas Library  
833 Las Vegas Boulevard North  
Las Vegas, NV 89101  
Right across from Cashman Center

\*Additional events to be announced by email



## Hatchling foster program begins

Unwanted hatchlings have no place to go, as they are too small to adopt. The US Fish & Wildlife Service has asked Tortoise Group to help foster hatchlings that are found or turned in until they can be translocated to the desert.

Many Tortoise Group members have offered to be foster parents, setting up a habitat and caring for the little ones. Up to 10 hatchlings can be kept at one home.

The program is expected to last just one year, as no hatchlings will be accepted in 2015.

Submitted by Georgi Shalhoob

Here is Nixie, with her Grandma's 16-year-old tortoises, Runtley and Big. Grandma says her tortoises like to sit in the sunshine and watch her granddaughters, Videl, Leandra and Nixie, scurry around looking for dandelions, petunias, yellow bells or desert willow blossoms to feed them. You can almost see them smile as the bounty is placed before them. The girls also allow the tortoises to run through the sprinkler with them.

### Tortoise Group Membership Form

Memberships and contributions may be tax deductible

**1. Please Print the COMPLETE address**

Name \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

E-mail \_\_\_\_\_

**2. Check One Newsletter Option      2014**

- Send my newsletter by e-mail
- Send my newsletter in hard copy

**3. Check amount you wish for your 1-year membership**

\$25    \$35    \$50    \$75    Life \$500

Special Contribution: \_\_\_\_\_

33% discount on MegaDiet and 10% on other Tortoise Group goodies to members and their immediate families

Make check payable to Tortoise Group. Mail with form to:  
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Secretary: Laura Deitsch

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Members: Kirstin Haas, Jim Moore

*Tortoise Group Newsletter is  
published four times a year in  
March, May, July and September*

## In Brief

### Help Tortoises Find Homes!

Please help Tortoise Group find folks who would like to adopt tortoises. Tell your friends, co-workers, the people in line at the grocery store, and everyone else you meet what lovely pets tortoises make. Ask them to submit an adoption application on our website. We are limited to one tortoise for new custodians.

### Tortoise not out yet?

Have you seen your tortoise yet? By the beginning of May, most tortoises have emerged. If yours has not come out yet and it's now late for its arrival, take action. The burrow may have collapsed or it may have dug and become trapped.

- Look down the burrow using a mirror or flashlight.
- Slide a long pole into the burrow

gradually and listen for movement.

- Tape a smartphone onto a pole, turn on the video, and slide the pole into the burrow.
- If you can't find the tortoise, dig up the burrow now! **Don't wait until August.** If your tortoise usually emerges in May, then there is no cause for alarm.

### Books

We often receive information on books, art and other products created by our supporters and those who contact us independently. While we can't endorse products directly, we can inform members so that you can check them out.

Carolyn Ahern's books can be seen at [www.tinoturtletravels.com](http://www.tinoturtletravels.com), while Jennifer Foreman de Grassi Williams' new book is at <http://projectvango.org/tiki.html>.

RETURN SERVICE REQUESTED

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