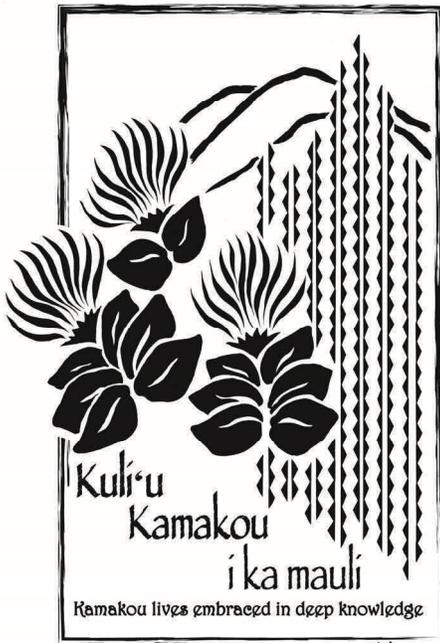


NATURE'S NEWSFLASH 2013



'Aloha! Nature's Newsflash is a semi-annual publication that features stories and insights of conservation activities that help preserve and protect Moloka'i's native natural resources. If you would like to contribute information to our publication, please send it to The Nature Conservancy, P. O. Box 220, Kualapuu 96757. Let's all make a difference by "Thinking globally, Acting locally"!

April Issue



The 2013 Moloka'i Earth Day Celebration will be on Friday, April 19, 5-9 pm at the Mitchell Pauole Center

By: Ed Misaki, TNC Molokai Program Director

We are celebrating the 30th Year Anniversary of Kamakou Preserve! Thus our Earth Day theme, "***Kuli'u Kamakou i ka Maui, Kamakou lives embraced in deep knowledge***". The Nature Conservancy entered into Hawaii's first conservation easement with Molokai Ranch in September 1982. Preserve management in Kamakou began in January 1983 and the first task completed was the making and posting of the Preserve Sign at the entrance near the Waikolu overlook. Kamakou Preserve was also the first "managed preserve" in Hawaii and now anchors the East Molokai Watershed Partnership. The Preserve staff over the years have constructed the first forest boardwalk (Pepeopae trail) trail system, developed an innovative native vegetation monitoring system (MUM or Molokai Understory Monitoring), assisted with the

formation of the Molokai Fire Task Force and provided logistics for numerous research projects, including the ongoing USGS Kawela research that is measuring vegetation recovery, erosion rates, intermittent stream flows, and coral reef impact in that *ahupuaa*.

This year is also the 21st Annual Molokai Earth Day Celebration and is co-sponsored by the County of Maui, East Molokai Watershed Partnership and The Nature Conservancy. This annual celebration began in 1993 as the first "*Molokai CARES*" event and was held during the 3rd Saturday of April at the Kaunakakai School Cafeteria. The Nature Conservancy was asked to continue the event and in 1995 relocated the Saturday event to the Mitchell Pauole Center. The Ka'au Crater Boys and a Ukulele Contest entertained the crowd and food booths were also part of the event's draw. In 1996, the Saturday event became a Friday evening event and featured the local artist, Del Beasley. There is a poster and t-shirt design from the past 20 Earth Day Events! Zennie Sawyer of "Haku Designs" created the designs and Opu'ulani Albino helped our Earth Day committee with the development of the theme. The 2013 Molokai Earth Day t-shirt design above features the red, yellow and orange "Ohia Lehua" blossoms we see every year in Kamakou. Please come and join us in celebrating Kamakou's 30th year anniversary at our annual Earth

Day Event! There are so many people who have been engaged over the years with the task of taking care of the Preserve's precious native natural resources and sharing with others about *malama aina*. On behalf of the Conservancy, we would like to give a big Mahalo to all!



Mahalo to the 2013 Earth Day Planning Committee: Cheryl Corbiel, Dan Bennett, Rob Bento, Dan Emhof, Diane Mokuau, Kali Arce, Lori Buchanan, Manuwai Peters, Mapuana Dudoit, Penny Martin, Emillia Noordhoek, Paul Hosten, Ed Misaki, Brian Naeole, Russell Kallstrom, and Wailana Moses.

Invasive Species.....So what's the big deal?

Submitted by: Lori Buchanan - Molokai/Maui Invasive Species Committee (MoMISC)

"So what's the big deal?" I hear that often when I approach someone to talk to them about an alien plant or animal that they have. Most people know about invasive species and how they can become a huge problem if brought to Molokai but choose to "chance um" anyway putting our entire island at risk of a silent invasion.

What's wrong with importing food producing plants and animals to eat? Isn't that a good thing? What's wrong with letting exotic and invasive plants, birds, pigs, deer, sheep, cats, dogs, and reptiles etc. roam free? Well a lot and it is not *pono*. Most of us know that "*pono*" means righteous, but more importantly it means "balance". When our environment is "out of balance" we got trouble! Remember the old saying; "everything in moderation", well it's true for everything. Too many goats, sheep and deer in one area eating all the vegetation (denuding) and trampling the ground adds to soil run-off (erosion) that goes to the ocean that covers our reef and adversely impacts our fish, crab, limu etc.

Pigs in the middle and upper forest eat invasive guava, blackberry etc. and spread them into native forest through their feces and hooves. Pigs love to eat native hapuu ferns and cool off in water puddles (wallows) where mosquitos breed and spread diseases to native birds. It's not the pigs fault, or the guava's fault, or the mosquito's fault. None of them asked to be here but they are and with every introduction of a new invasive species (incipient species) the adverse (junk) impacts to humans and the environment is compounded (cumulative impact) and now we are out of "*Pono*".

Every time we ship in plants, goods and animals from outer islands that are infested with invasive species like coqui frogs, fire ants, bee mites, potato bugs, ohia rust, naio thrips, apple snail on kalo huli's and banana bunchy etc. we run the risk of infesting our beloved island. People are shocked to learn that MoMISC has had 6 interceptions of coqui frog on Molokai already. We rely on "luck" to catch new pests and we depend on our community to not bring in "new stuff" from outer islands and to inform us if "new stuff" is brought in. Remember that we're bound to run out of "luck" if "new stuff" continues to arrive on island.

I was raised being a plant collector. I always wanted the "newest" most unusual plant out there and I would "sneak" stuff home to Molokai just to satisfy my own wants, oblivious to the potential impacts to my island. Shame on me! I need to thank the many people who took the time to educate me on the dangers of the "silent invasion". I no longer "chance um" and instead choose to be proactive in teaching others about the impacts of invasive species. To learn more about the "silent invasion" you can either visit: <http://www.hear.org/intro/contents.htm> or call me. We need your help to keep Molokai free from harmful invasive pests and to work for *pono*. MoMISC is thankful to the residents of Molokai for all your help. Please continue to maka'ala (be vigilant) and report pests to **MoMISC at (808) 954-6585 or (808) 336-0625**. Please don't bring potentially bad "stuff" from outer islands. Please feel free to call us if you have questions. Mahalo Molokai!

Mahalo Nui Loa for Helping TNC & our Partners!

Dan Bennett, Robert Bento, Brynn Burbach, Cheryl Corbiel, Michael Corpuz, Patricia Crandall, Stephanie Dunbar-Co, Yvette English, Cherie English, Steve Evans, Bill & Frances Feeter, Kevan Garner, Pomai Gomes, Coral Gonzales, Michael Grinnell, Kekama Helm, Ama Jacobs, Harvey James, Darlene Johns, C. Ted Johns, Billy Johnston, Blaze Juario, Tyliah Kahaulilio, Kealoha Kalima, AJ Kalima-Moses, Iokewe Kalima-Moses, Liz Kashinsky, Joe Kitagawa, Malu Lani-Kaakimaka, Guy Tommy Larson, Laurie Loomis, Shannon Lopez, Margaret Marcom, Penny Martin, Kiliwina Moses, Iponohea Nahoopii-Kaauwai, Emilia Noordhoek, Tati Paaluhi, Julia Parish, Mapuana Pascua, Rhye-Shae Puailihau, Max Quinney, Roz Rapozo, Danielle Richardson, Roblen Talon, **UH Hilo Break Thru Adventurers:** Daniel Bogglin, Lepeka English, Zack



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Gorele, Rose Hart, Hokulani Reyes, Heather Sexton, Cecilia Stromhielm, Marcos Vallejo, and Morgan Vreeland.

"Dog Breeding & Selection"

By: Brian Naeole,
Animal Control Coordinator

Every hunter wants a successful hunting dog: one that is intelligent, responsive to the handler's commands, agile and fit. It also helps if they are not too big so they can be easily handled. They need to have the stamina to be able to go after a pig day after day. An intelligent breed knows when a pig is too big for him to handle and when to stand off. Whenever you breed, choose dogs that have good habits the pups will inherit and when choosing from the litter, pick pups that closely resemble their parents.

Most hunters try to mix breeds and stay away from purebreds. This way you can combine the best traits of individual breeds. The dog needs to be well mixed because too much of a particular breed can lead to problems. For example, the following purebreds have intelligence, stamina, speed, are reasonably light, well behaved and are easy to train: **Greyhound**- fast, but not enough stamina; **Blue Heeler**- tends to annoy the pig and get other dogs hurt; and **Airedale**- tends to hunt out too far. Pure breeds that were found to be unsuitable were the **Bull Terrier** and **Pit bull**, but if you choose to mix these two breeds with others, try not to have more than 25% in the mix. Don't get me wrong, I am no expert dog breeder, but if you think about it, you can pick the characteristics you want in a dog to suit your human needs be it at home or in the field. When picking breeds you need to consider the dog's description, origin, living conditions that they need (apartment vs. yard vs. open pasture), health problems and most of all temperament. Big question is, "How will they react towards my kids?"

My two handler friends have combined different breeds of dogs to suit their hunting needs... The one from Texas, a woman who hunts Eurasian boars and helped open the "Ugly Dog Ranch" (also field tests the hunting gear!), has a mix of:

Airedale Terrier- A great tracker, very active, bold, adventurous, protective, intelligent, pleasant, and extremely loyal.

Black Mouth Cur- For people who hunt, no other dog will do. A versatile, avid hunter with medium to large sized game catches and dispatches with no questions asked, this dog never retreats. Excels at baying and herding, extremely loyal, intelligent, athletic and easy to train.

Pit Bull- Has a strong need to please; natural aggressiveness are towards other dogs and animals not people; good natured, strong, amusing, extremely loyal and affectionate.

English Pointer- A very alert, hard-driving and enthusiastic hunter who naturally finds and retrieves game. Works well with other dogs, intelligent, devoted, loyal and clean.

The other handler from New Zealand who does contract hunting around the world has a mix of:

Jack Russell Terrier- An intelligent, fearless hunter that finds and dispatches small game; thrives on action and adventure; is also very cheerful, devoted, spirited, loving and obedient.

Bull Terrier- Fun loving, comical, people loving, courageous, scrappy, active, clownish and fearless with powerful jaws and a strong prey instinct.

Bull Dog- Extremely docile and tractable, can move very quickly over short distances, friendly, gregarious and occasionally willful, holds lowest degree of working/obedience intelligence.

Poodle- A strong swimmer known to flush and retrieve game from water with a keen sense for instinctive behavior; highly energetic, also gets bored easily and have been known to get creative about finding mischief.

So you can see the different types of breeds these two handlers mixed together to suit their type of hunting.

The most important thing is that breed makes up only 25% of how the dog behaves. 75% of the time the handler is the cause of the dog's behavior and never realizes it, remember that! Until the next Flash, A hui hou!

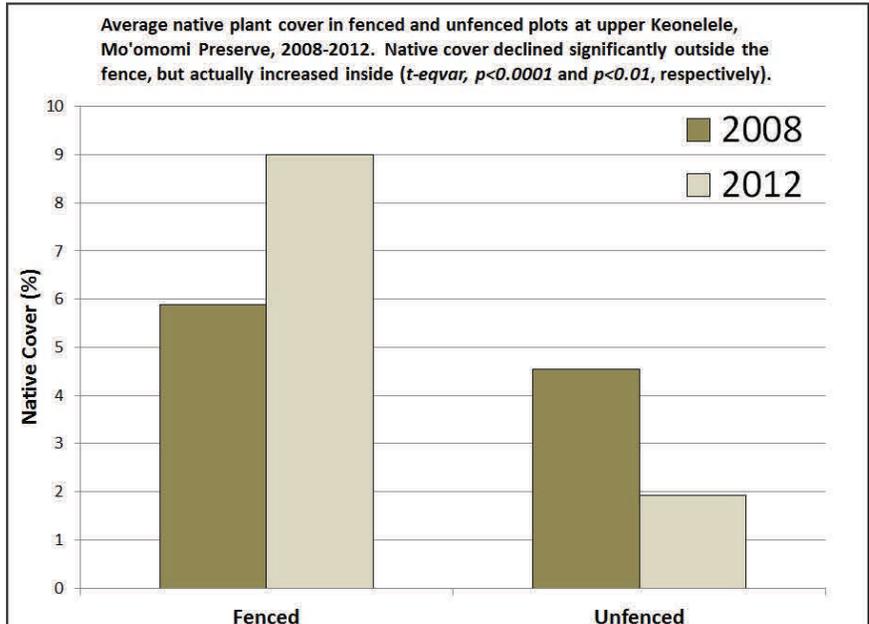
Dogs on the "Ugly Dog Ranch".



Deer Impacts at Moomomi

By: Russell Kallstrom, TNC Molokai Program

Aloha! Six years ago, the Conservancy was asked, "what effects does deer have on the native dune vegetation that occurs out at Mo`omomi?" We set about to answer that question by constructing small fenced plots and measuring changes in vegetation cover at the same time, year to year, both inside and outside those fenced areas from 2008-2012. In addition, we weeded part of each area to see if there was an additive effect of weed removal and fencing. At our study site in upper Keonelele, we found:



Deer prefer to eat non-native buffel grass. Buffel grass increased in the fenced area, but was reduced outside. This may be a positive thing for managing alien grass dominated systems.

Deer trampling can decrease native plant cover. The native Hawaiian dwarf shrubs (hinahina, `ilima, nehe, etc.) found at Mo`omomi are very susceptible to crushing or trampling (same reason we don't allow ATVs in the preserve). Outside the fenced plot we saw a significant drop in our native shrubs from 2008, but inside, native plant cover actually increased (see graph above). A particularly sensitive, rare Hawaiian dwarf shrub only found on west Molokai (*Tetramolopium rockii*) decreased 10x in areas that were unfenced. The trampling effects of deer became particularly apparent after weeding one area outside the fence, after which deer began to use it as a highway, crushing the remaining native plants.

Fencing combined with weeding may increase native cover. The area that was both fenced and weeded showed increases in native vegetation. By the end of the study, overall native plant cover there increased by nearly 10%. Cover by the rare Molokai dwarf shrub *Tetramolopium rockii* increased by 75%.

Mahalo to the many people who helped with the plot setup, monitoring and summary over the years. The data confirms that fencing combined with weed removal are helpful tools to preserve Molokai's native coastal vegetation.

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