



# Institute for Canine Forensics

**ATTENTION!**

Photos of human bones on page 5.



ICF is a non-profit organization in Northern California for the advancement of research and education of Forensic Evidence and Human Remains Detection Dog teams.



ICF Newsletter

[www.K9Forensics.org](http://www.K9Forensics.org)

August 2009

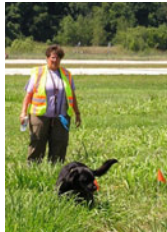
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## On a Mission

Thank you for the many compliments and emails from people who were enjoying our newsletter. We love feedback and want to send information in our newsletter that is relevant and helpful to dog handlers, archaeologists and people interested in locating historical human remains. If you have ideas or things you want more information on please let us know.

If you know people who might benefit from this information please pass the newsletter along or have others sign up to receive it (see link at the bottom of the newsletter).

will only be available to dogs who specialize in HRD. Cross trained live scent (or other kinds of scent work) dogs are not eligible to certify under the ICF HHRD testing policy. The ICF training philosophy is a specialized dog is more reliable and has a greater certainty to only locate the target scent.

Currently we have 8 certified HHRD dogs, several who are working on their re-certification and a few in the certification process.

ICF has made inquiries to other handlers who are interested in historical work throughout the country and we have found that ICF is the only search organization in the world that has a certification process for HHRD.

Many of us have our roots in search and rescue and some still work with law enforcement, working crime scenes looking for human remains. Currently, ICF and the HHRD certifications are outside of the recognized Search and

Rescue certification process in California (actually, all states). However, more and more law enforcement agencies are requesting our historical dogs for cold cases. We hope in time that this specialized resource will be recognized and more available for law enforcement cold cases.



You can find more information about us and the projects we have worked at [www.K9Forensics.org](http://www.K9Forensics.org)

Or email us at: [info@k9forensics.org](mailto:info@k9forensics.org)

- AM & LA



The Board of Directors for ICF have updated their testing and certification policies. The historical HRD certification

# Equipment, Tools and Gadgets

*Lynne Angeloro*

Hopefully, this will be a regular column on some of the cool tools available for use in Historical HRD and other disciplines of Search and Rescue with dogs. Each newsletter, I'll choose a few items that I've seen that are or might be useful for what we do. Also, I'll try to identify some of the items in the HHRD Handler kit and one or two sources for each, along with the latest pricing. ICF has a list of required equipment for Historical HRD handlers, broken into categories: Mapping Supplies, Personal Equipment, Excavating Supplies, and Headstone Rubbing Supplies. Every handler's kit is designed to be accessible, but, not necessarily carried at all times, the kit would be too heavy, for sure!

Here are some "cool tools, equipment and gadgets" explained:

## THERMOMETERS

Thermometers are a very important part of the kit! Knowing how warm not only the air is, but also the ground will help you attain better search results! The studies on canine noses point to a well hydrated nose (Scent & the Scenting Dog, by William G. Syrotuck – <http://www.Amazon.com>). The hotter the ground temperature, the more hydration is required. Often, when dogs are too hot, they won't drink. Baiting their water, either with a low- or no-salt chicken or beef bouillon or broth or with some of the new electrolyte replacement additives will encourage the dog to drink more water:

(<http://www.hydrolyte.us/purchase%20SAR.html>).

## NON-CONTACT LASER THERMOMETER



Instantly measure temperatures by simply pointing the laser.

### Specifications:

- Professional quality, German infrared technology at an excellent value
- Temperature range: -4°F/-20°C to 968°F/520°C
- Distance to spot accuracy: 8 to 1
- Single circuit chip design prevents jamming
- Celsius/Fahrenheit LCD display with backlighting
- Accuracy: +3°F/+2°C or 2% of reading
- Nonslip cushioned grip

9 volt DC battery included. Overall dimensions: 7" L x 1-3/4" W x 4-1/2" L at grip, Weight: 0.35 lbs.

Available from HarborFreight.com  
Part # 96451 Cen-Tech \$59.99

## MICROTEMP COMPACT NON-CONTACT INFRA RED THERMOMETER



## THERMOMETER

### Specifications:

- -27oF to 230oF measure range.
- -32oC to 110oC measure range.
- 1:1 distance-to-sight (d:s) ratio
- Celsius and Fahrenheit modes
- Powered by 2 LR-44 batteries
- Super-compact size: 3.2"x .75" Fits on key ring or in pocket!

Also available from Frys Electronics Stores FRYs.com Part #: 5725672 \$24.95 Both of these work well for ICF/CSST search conditions, the MicroTemp is considerably smaller, so, it fits in your fanny pack better.

## FOR THE iPHONE USERS AMONGST US:

Charge up your iPhone on the road, on the search, on the go!

## Mini Battery Pack and



## Charger for iPhone

Continued from page 2

### Specifications:

- Power and charge your iPhone or iPod
- Extends play time up to 30 hours of music; 6 hours of video; 3 hours of talk
- Includes retractable USB charging cable to recharge battery pack
- High-capacity, rechargeable lithium-ion polymer battery pack for increased energy efficiency
- Small enough to keep connected to your iPhone or iPod
- LED battery meter displays remaining power level



Available from: <http://us.kensington.com/html/15462.html>  
Model number: K33442US Price: \$49.99

## Juice Pack Air and Juice Pack

### Juice Pack Air Specifications:

- Extended battery and the full protection of a ultra-thin, light-weight hard case.
- The built-in on/off switch allows you to use the juice pack air™ just as a case or as a battery at the flick of a switch.
- Charge and sync your iPhone to iTunes without removing it.

### Juice Pack Specifications:

- Designed for the power user! The 1800 mAh battery more than doubles your power!
- Easily removable 'Quick Draw' design for quick power-ups or pass it to a friend in need!

- No-slip grip and soft-touch rubberized finish.
- Charge and sync your iPhone to iTunes without removing it.



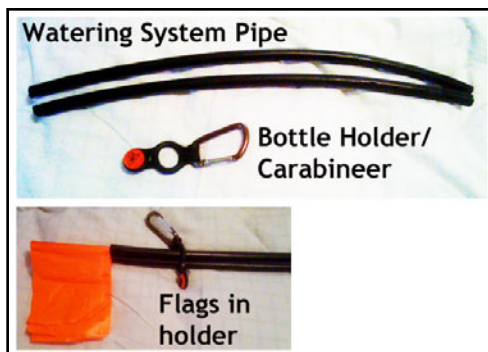
Available from any Apple Store

## Make Your Own Alert Flag Holder

Tired of fumbling, dropping and losing your alert flags? Want a way to keep them with you without tying up your hands? Don't want them poking you or your dog? Here is an inexpensive, easy solution!

1. Purchase a roll of black plastic ½" watering system piping at your local Home Depot or Lowe's.
2. Purchase a water bottle / carabineer from REI.
3. Cut 2 pieces of the piping 40" long, or, at least longer than your flags so they don't hang out the bottom and scratch your legs.
4. Slide the 2 plastic pipes thru the bottle holder, not too far down or it will be top heavy.

That's it!



5. Now, slide your flags into the pipes, one for 2 different colors, or all the same!
6. Lay this out in the hot sun for a few days to relax the natural curl of the pipes.
7. Clip the carabineer to your belt loop or fanny pack and it will always be with you but is out of the way!

## Quick and Simple Flagging Tape Holder

We all need to carry several colors of flagging tape, and taking the whole roll is just too heavy! Here is a simple solution using some common items!

### Items you will need:

Small empty prescription bottle  
Center plastic core from those potty bags  
Exacto Knife  
Optional: Grinder

1. Wrap the flagging tape of your choice around the center of the plastic core until it's just smaller than the inside diameter of the pill bottle.
2. Put the cap on the bottle to keep it stable and cut a slot on the side of the bottle slightly wider than the tape.



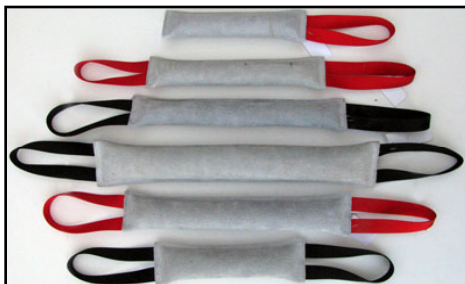
3. If it's easier, you might grind the side of the bottle first, and then cut the slot with the knife. Don't grind too deep or the bottle will break.

Continued on next page



Continued from page 3

1. Wrap the flagging tightly and slide it into the bottle.
2. Use a pin or paper clip to pull the end of the flagging tape thru the slot.



## Keeping Your Hands and Feet Warm!

There is NOTHING more miserable than cold hands or feet! NOTHING!! These are a MUST for all handlers kits. The Grabber Hand and Foot Warmers are available by the case from Costco at the first of the winter (there is winter in CA!!).



They go inside your pockets or mittens, and inside your boots. Worth 100 times their weight in gold!

Available from <http://www.warmers.com> 7 Hour Hand/6 Hour Toe Warmers (4 Big Packs \$40)

## Training Tugs for Your Dog

These are available in durable suede and MANY of the dogs in ICF are excited to play with them! Throw and retrieve, every BC's dream, with 2 of them, one to throw, and one to entice the drop. Single end and double end pulls.

Available from <http://www.fullgripgear.com/tugs.html>

## Other Pull Toys to Reward Your Dog

Reward that alert! Play rough, but, keep it close. Excellent for work and play! \$10.00, with Leather strap \$12.00

Available from: <http://www.fullgripgear.com/toys.html>

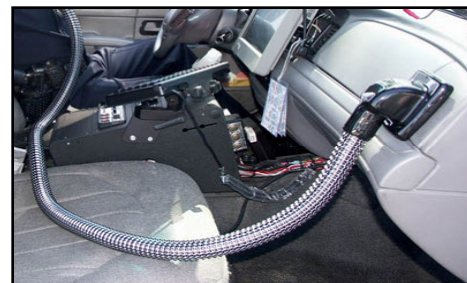


## Cool It with Kozy Kennel!

Vent extension for placing air conditioning in your car directly into your dogs' crate! No more overheating or fears! Kozy Kennel installs in minutes to a vehicle's air conditioning vent and directs conditioned air or heat to a dog crate, carrier or K9 enclosure. Kozy Kennel is great for show dogs, hunting dogs, police canines or anyone who travels with pets. Kozy Kennel keeps dogs safe, climate controlled and at top performance! \$69.95



Available from: <http://www.fullgripgear.com/dogcool.html>



## In the Next Issue –

Which GPS will Work Best for Flagging Alerts? Are they Accurate enough? Also, New and Old Gadgets – Quick and Easy Solutions to Carrying as Much of Your Equipment as you can!



# Training Update

## Training A New Puppy To Find Historic Human Remains

Kayle, a Border Collie puppy, arrived home in mid-March at the age of 8 weeks. The training of a new puppy is complex and time consuming. She needs to learn puppy socialization and obedience along with more advanced search skills. This article will only focus on her training to find historical human remains. Her breeder had already clicker trained her, so she was ready to start this more advanced learning.



*Kayle's puppy shower at her first day of training with the group. Auntie Adela gets the honor of helping to open her presents.*

## Initial Training

She first needed to be imprinted with the scent of old dried human bones. A few days after she arrived home, the bones were placed on a concrete patio and she was allowed to wander around the patio. As soon as she put her nose near a bone, I clicked and gave her a treat. This type of training is called shaping the behavior and can be used to teach a dog many behaviors.

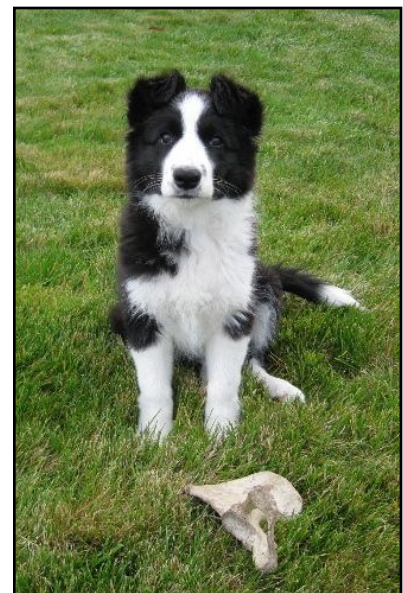
She soon learned that she only received a click and treat when she put her nose near a human bone. Other objects on the patio provided no reward, so she quickly focused on running over to the human bones to get her reward.



*At 9 weeks Kayle is finding bones out in the open and offering a sit for her alert.*

By the end of her second training session, she started to offer a sit when she found a bone. It is

common for dogs that have been trained by positive reinforcement, such as clicker training, to offer behaviors for which they have previously been rewarded. By withholding the click for a few seconds after she found the bone, she would then offer a sit to get a reward. The two behaviors of locating a bone and sitting at the bone are now combined as a single action. The sit alert allows her to unambiguously tell the handler that she has found human remains scent.



*Kayle at 10 weeks old starting to find partially hidden bones.*

A puppy naturally wants to pick up objects in its mouth, and this type of behavior is unacceptable when



working on archaeological sites or at crime scenes. Kayle tried this several times with the bones. She was not rewarded for this behavior, and if she ran off with a bone, the training session was ended and she was given time out in her crate. The lack of a reward will extinguish an undesirable behavior.

## Finding Bones by Scent

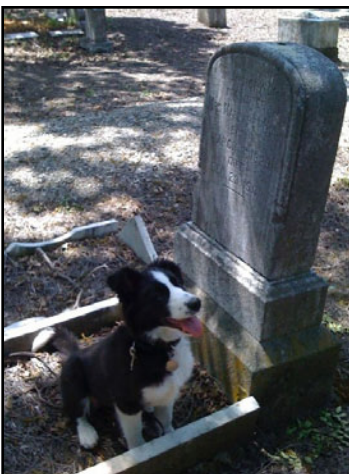
Up to this time, Kayle was finding the bones visually and then scenting them to find out if it was an object that provided a reward. The next step is to train her to find the bones using only her nose.

The bones were now placed in the grass. Larger bones, such as a pelvis, were in the grass so that she still had a visual target to remind her what she was doing. Smaller bones, such as a rib, were hidden in the grass so she had to search for them by scent. The sit alert was now established, so when she found a bone, she would sit next to it to get her reward.

A video of her working on grass is available at

<http://www.youtube.com/watch?v=d5WseSwj-4g>. The video shows the distractions that will happen with a young puppy. It is important to remember that puppies need short training sessions that are fun.

Over the next several months, we hid the bones under leaves and other objects. She gradually learned to find them exclusively by scent and to do her sit alert with no visible bone.



Kayle at 16 weeks, her first training at a historic cemetery.

## Cemeteries

The dogs trained exclusively for finding historic human remains can find burials that are thousands of years old. The puppy needs to learn that its job is to locate human burials, not bones hidden during training sessions. The puppy imprinted with human remains scent understands the target scent for which they are searching, but the first time they visit a cemetery, they are overwhelmed by the scent coming from hundreds of human burials.

Kayle's first experience with a historic cemetery was in May. She was already alerting on hidden bones and could even find bones or teeth that were buried just beneath the surface. To help her alert on a burial, we placed a single rib on top of several graves. This would provide a familiar scent source from the background scent of all of the other graves. Each time she found one of these bones on top of a burial, she would perform her sit alert.

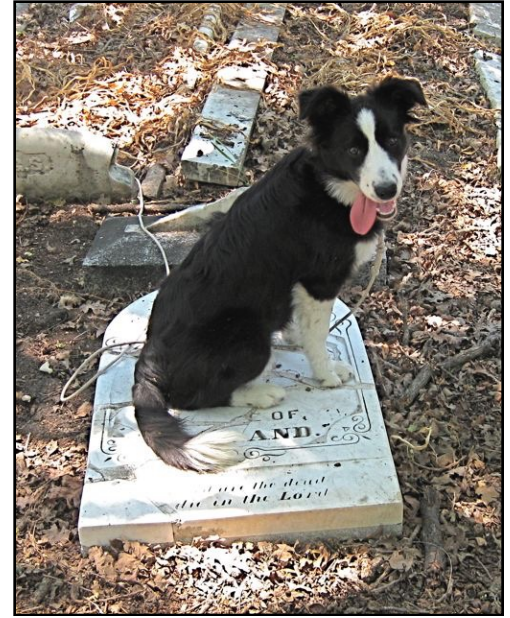
After she has done the bone assisted alert on a half-dozen graves, we allowed her to work a grave that several of the experience dogs indicated had lots of scent. She sniffed around it tentatively, but finally alerted. We continued on to several other graves that had been checked by the experienced dogs, and she began to alert more quickly.



Kayle's second training at a historical cemetery at 20 weeks.

We returned to this historic cemetery in June. This time she had more confidence

and alerted on a number of graves. As Kayle continues her training, the



problems she is asked to solve will get more difficult, and she will be expected to work for longer durations and in new locations with more distractions. Eventually, she will learn enough to be able to take her formal examination and become a certified HHRD dog.

- John Grebenkemper



Puppies form life long friendships with other dogs, this is Eros and Kayle having a sleepover.



# Projects

## Oregon-California Trails Association 1849 Burials

July 21, John Grebemkemper and Adela Morris joined Frank Tortorich and the Oregon-California Trails Association on their walking tour of possible burial sites along the Carson river cutoff of the California Trail. These burials would likely date from about 1849 to the early settlement in the late 19th century.

The first stop was near routes 88 & 89 in Hope Valley where the Rhea checked a rock mound that was next to what could have been a foundation to a house and near the trail. Adela started Rhea into the wind about 40 meters east of the target area.



*Rhea alerted on the rock mound*

3 different potential burial sites were checked along the trail. At two sites the dogs agreed there were burials. At a third site the oral history recorded that there was a grave in the meadow and several years ago a headstone marker was placed where they guestimated the location. The

dogs gave no indication that there was a burial there. We have been asked to come back in the Spring to try to locate the real location.

## Ft. Leavenworth, Kansas

During the Winter of 1877-78, the Nez Perce tribe was incarcerated in Kansas after attempting to flee to Canada. That winter 21 members of the Nez Perce Nation died and were buried, according to oral history. Because the area is now scheduled for improvements, the Tribe wanted to know the location of the long lost cemetery so that the burials would not be disturbed.

ICF's assistance was requested by the US Army Corps Research Lab - (ERDC CERL) Engineering Research and Development Center - Construction Engineering Research Laboratory. ERDC-CERL will conduct geophysical surveys to locate features to help identify the cemetery location and the dogs' survey will be overlaid with their findings. A report will be forthcoming.



*Riley alerting*

The ICF team members were Jan Hepper and Alice, Adela Morris and Rhea, Lynne Angeloro and Riley (all from California, and Donna Randolph and Zuma (Indiana).



*The ICF teams and the Archaeologists*

Several areas were somewhat impassible because of the amazingly high weeds!



*ICF team member Donna Randolph shows just how high the weeds were*





*The photos above are from past ICF workshops*

## ICF Workshops

As part of the ICF mission we feel strongly about sharing our knowledge. Our team has many qualified instructors in a variety of disciplines. In 1998 ICF presented their first workshop, topics included Critical Incident Stress, Role of the FBI in Investigations, Human Osteology, Dealing with the Media, Biohazards and Decon for Humans and / canines, Cause of Death, Evidence Collection and Preparing for Court. This would be the first of many workshops to come.

After that workshop Shirley and Adela developed a curriculum to teach handlers how to train their dogs to find human remains. Along with our qualified diverse instructors we also bring in experts from different fields to teach. Our most current workshops have covered many aspects of HRD work, everything from human bone identification, Canine Decon - disaster searching, HRD beginning to advanced, crime scene searching and canine first aid. Not only are we sharing our techniques with others we are learning from them. We have taken

our workshops all over the USA and Eva has continued and presented workshops for teams in her home land the Czech Republic.

Because of her work, Eva has been instrumental in helping the Czech Republic establish standards in both human remains and area search.

### Exchange of Ideas in the Czech Republic

Kris Black has just returned from the Czech Republic where she presented a three day workshop / Exchange of ideas. It was sponsored by the Záchraná brigáda kynologů Pardubického kraje, who are a part of the Czech integrated SAR system, and the Eastern Territory Police Department headed by Vladimír Makeš.

She was joined by Chris Morgan the Santa Clara county Sheriff Search and Rescue training officer and Eva Cecil. Kris is not only one of our valued HRD instructors she also teaches her county

SAR team academe. They presented techniques used by teams in the USA as well as information on scent conditions, how to plan a search using the incident command system.

Kris, Eva and Chris were able to evaluate four of the CZ area teams on a 40 acre search (all 4 passed). This exchange of ideas was a great example of teams learning from each other and sharing different techniques for the better of all. - Adela



*Kris Black, Klaus in the car, Chris Morgan and Eva Cecil*



# Exchange of Ideas in the Czech Republic

Photos by Ludvik and Eva Cecil and Kris Black



*Chris Morgan presents the incident command system*



*Kris and Klaus with Chris as flanker do a demonstration wilderness problem*



*Klara and Peter go over search strategy*



*Eva translates*



*Vladimir and Lamel*



*Martin and Bara after passing the 40 acre certification test*



*Milos gets ready to take his certification test*



*Kris is presented with a gift of appreciation*

*Group photo of the Seminar participants*





# Working Conditions



## Guidelines for Using Historical HRD Dogs

### Flora and Fauna

As dog handlers, we are always aware of the conditions we work our dogs in. The most common things we track are air and ground temperatures, soil conditions and what the ground surface looks like.

When we are requested for projects the first things we need to know is where, what, how large of an area and what the ground surface is like.

Historical HRD dogs work with their nose close to the ground to locate the scent of burials. If there is thick brush covering the area the dogs may miss burials or have a more difficult time pinpointing. Scattered plants and short green grasses are fine, actually they can be beneficial as they hold the scent in place.

Dog handlers learn to identify plants right away as it can become a health issue. Our biggest fears are small things called fox tails. The name fox tail is really a generic name given to several kinds of weed and grass seeds. Some of these plants are a great danger to the health of the dog and some are just an annoyance.

You have to give mother nature credit for her creative ways she spreads her seeds. Many of the "fox tail" seeds have barbs on them so they only go one way. This helps them get attached to modes of transportation (animals and humans) and when they find soil they work themselves into the ground with their one way barbs.

Because the dogs must have their nose close to the ground surface to be the most effective, they are in danger of sniffing up foxtails in their nose. As the dogs struggle to get it out, the barbs continue to move it forward on its one way mission.

Foxtails can continue to travel throughout the body. They can enter the body any place but the most common is the nose, ears and feet. As soon as the dog gets a fox tail in their nose the party is over. It is an immediate and expensive trip to the vet to remove it.



Puncture Vine also called Goat's head looks innocent when its green. But its far from innocent when its dry. The seed heads can even puncture bike tires.

Other plants like stinging nettles, star thistle and milk weed make searching some areas



unreachable by the dog and handler.

Another dreaded plant is poison oak, dogs do not get it but the oil on the



leaves gets on the dogs fur and then is transferred to humans.



Hitch hikers, also called field lice attach to the dogs fur and are very difficult to get out. The tiny barbs get stuck in human skin as we try to pull them out.

Many of California's native grasses have been overtaken by invasive species, like



the fox tail grass. After the first rains the grasses start sprouting and depending on the amount of rain the grasses will mature and dry as early as April. Usually by the fall they have been trampled down and are not as much of a problem.

If the grasses are cut or disked before the seed heads mature this eliminates the problem for dogs. But if the grasses are cut after the seed heads form they will continue to dry and be laying in wait for a host.

- Adela Morris





# Tom Pomeroy Memorial Training

October 2 & 3, 2009

Canine Human Remains Detection (HRD) team training will be held at the Santa Clara County Police Officers Association (SCCPOA) in memoriam of our fellow HRD and Law Enforcement canine handler Tom Pomeroy.

The workout will feature a combination of presentation, classes and problems for Canine Human Remains Detection teams. The workout is open to HRD teams and Law Enforcement personnel.

Put on by the Canine Specialized Search Team and the Institute for Canine Forensics in memory of team member Tom Pomeroy.

The workout will begin Friday with a training exercise and camping at the SCCPOA and will continue with more training exercises and discussions on Saturday. Some of the events being offered include a crime scene demonstration and a bone identification class, both to be held Friday afternoon. Law Enforcement is welcome to participate in the training's or observe, as they wish.

Come join us for the Friday night barbeque for handlers, Law Enforcement and guests. After dinner, we'll have a fireside chat to share stories of Tom. The SCCPOA offers several campsites for those wishing to stay the night. Please RSVP for camp facilities so that we can ensure there is room for everyone.

Check this web page for updates <http://tom.geoguide.org>

- James Davidson





## A Job Well Done

### Congratulations !!!

We would like to thank Kris Black, Eva Cecil and Chris Morgan for their outstanding job for presenting an Exchange of Ideas on wilderness search with the Czech Republic. They also evaluated four CZ wilderness teams.

Great job!

Eva Cecil was awarded a medal by the city and Police department of Lázně Bohdaneč, Czech Republic for her active support of the department and her achievements with her dog.

Clearly you made a difference to them!



### Sweet Sixteen

Happy Birthday Cholla July 9, 1993

Cholla has had a long career and has been certified in HRD, water, and HRD disaster, with two different handlers. She was one of the first dogs to work historical burials. She currently enjoys her retirement and enjoys sunbathing!

Thank you Klaus for making us look good in CZ. You are a true ambassador. I am sure you deserved a good snooze!



Cholla is bottom center, surrounded by some of the guests at her party





## Mission Statement

To promote and elevate professionalism in the use of specially trained canines for forensic evidence and human remains detection.

Our research provides needed information on canine olfactory capabilities in relation to forensic evidence investigations. We are developing advanced techniques regarding the use of canines as a forensic tool, to better assist investigative and cultural resource management agencies.

We promote the teamwork approach and emphasize cooperation between other experts and agencies in the field. We maintain a website and e-mail list for networking internationally and for the exchange of new ideas and discoveries.

## Board of Directors

(in alphabetical order)

Lynne Angeloro

Eva Cecil

Shirley Hammond

Adela Morris

Patti O'Neill - Esposito

Bev Peabody

## Advisory Board

(in alphabetical order)

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Veterinary advisor/consultant

Carmen Lucas  
Native American Monitor  
Kwaaymii, Laguna Band of Indians

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Archaeology  
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## Newsletter Staff

Lynne Angeloro

Adela Morris

and all the help we can find



ICF is a non-profit organization  
in Northern California

Donations are tax deductible

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