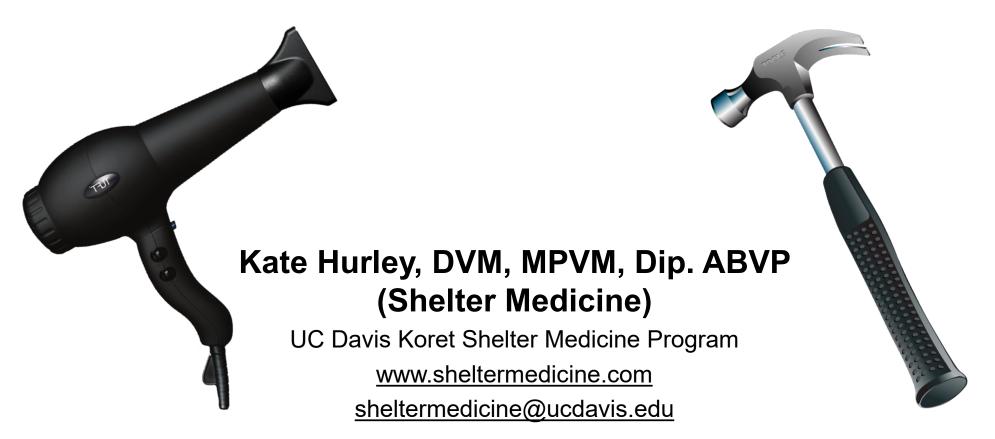
# Rethinking the role of shelters are a response to outdoor cats



### Where I came from



# Goals of shelter-based cat management

- Resolve nuisance situations and complaints
- Return lost cats to their owners
- Find new homes for cats that need them
- Reduce harm caused by cats
  - To wildlife
  - To public health
- Reduce the number of free roaming cats overall



## How I got here

2004 Barrows Welfare Symposium.pdf 2004 Nutter Feral Cat Inf Dz.pdf 2004 Nutter Feral Cat Repro.pdf 2004 Nutter Feral Cat Trapping.pdf 2004 Slater Welfare Symposium.pdf 2004 Stoskopf Welfare Symposium.pdf 2004 Winter Welfare Symposium.pdf 2005 Fan Feral Cats and Birds.pdf 2005 Foley Cat Control.pdf 2006 Lord Ohio AC.pdf 2006 Natoli Italy feral cats.pdf 2006 Reece Canine TNR and Rabies Control.pdf 2011 Finkler Feral TNR Behavior.pdf 2006 Zhang Rabbits vs. Birds.pdf 2011 Gunther TNR Colonies Israel.pdf 2012\_Hadidian\_etal\_cats eradication by human... 2012\_Hadidian\_etal\_cats.pdf 2013 Wald FRC Survey attitudes towards cats.p... 2014 BodenchukWS predator control.pdf 2014 Hanson San Nicolas Cat Eradication.pdf 2014 Lazenby Low Level Culling.pdf 2014 Morris Denver intake.pdf 2017 Spehar MA TNR.pdf ABC\_ReportToPompanoBeach hostile report.pdf andersen matrix model for control.pdf Anderson models for Control.pdf animal sheltering article hurley.pdf attitudes caretakers vs conservationist.pdf berger coyote control analysis.pdf bergstrom license to kill.pdf bergstrom wildlife services reform final article.... Bergstrom wildlife services Reform2013.pdf best friends letter with sanctuary costs.pdf bird predation in canada.pdf birds and rats on little barrier island.pdf ampbell et all eradication requires high volu... are or control.pdf at predation shearwaters.pdf ats protecting birds revisited.pdf centonze 2002 caretaker paper.pdf CFHS\_CatReport\_canada.pdf Chico Cat Flowchart.pdf cicirelli and johnson RTF paper.pdf community cat notes for expo.pdf community cat notes hurley.pdf community cats 2013 daylong.pdf community cats for Michigan final.pdf community cats for Michigan.pdf Crooks&Soule\_Mesopredator\_release harm in ... erie county feral cat summit.pdf Estimation of effectiveness of three methods ... extinction due to rabbit release.pdf Feline Intake Policy Sutter Example.pdf feral cat erad.pdf after feral cat home range article.pdf feral cat levy tnr.pdf feral cat management preferences loyd and h... feral cats in the clinic.pdf feral welfare blood biochemistry.pdf FeralFreedomGuide\_highres.pdf Followingtheferals\_GRETCHSFSPCA2013.pdf Food availability\_litter size\_RTF (3).pdf Fri5APaigeHillthesis\_1032806.pdf allapagos feral cat range.pdf Gehrt\_etal\_2013 feral chicago survival home ra... Gorman & Levy Feral Cats and the Law.pdf hanna mesopredator.pdf A harmful predator control bergstrom.pdf hawaii euthanize versus tnr lohr.pdf Hughes 2002 TEXAS A&M.pdf impact of predation.pdf invasive spp removal.pdf Jacksonville feral freedom case study.pdf Javma%2E237%2E4%2E387.pdf iessup wildlife adverse impact.pdf ## jfms unowned cat management guidelines.pdf Kim's MS thesis FINAL.pdf Knowlton coyote control 1999.pdf lee 2002 prevalence paper.pdf > levy 2003 Alachua ferals paper.pdf Levy 2003 UCF paper.pdf levy 2004 population estimates.pdf levy zip code study prepublication.pdf longcore critical eval of TNR.pdf Lord and levy collar retention.pdf lord lost dogs.pdf lord search methods 2007.pdf Loss\_etal\_2013.pdf lost cats slater and weiss.pdf Luria 2004 JFMAS.pdf marion island eradication history.pdf marion island success evaluation.pdf mccarthy population control model.pdf



# One thing we can probably all agree on

The impact of free-ranging domestic cats on wildlife of the United States

Scott R. Loss, Tom Will & Peter P. Marra

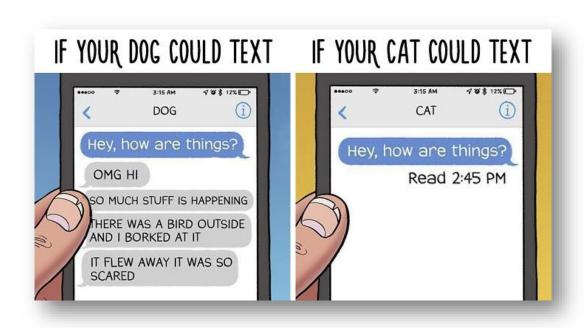
Affiliations | Contributions | Corresponding author

Nature Communications 4, Article number: 1396 | doi:10.1038/ Received 06 September 2012 | Accepted 12 December 2012 | I | Updated online 12 December 2013

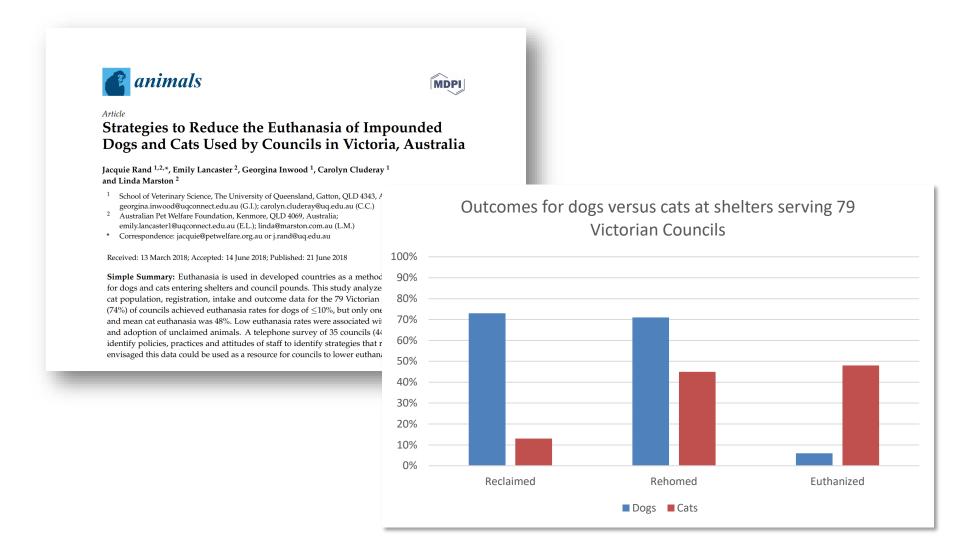
Corrigendum (December, 2013)

Structured decisions about actions to reduce wildlife mortality require a quantitative evidence base...Future specific management decisions, both in the United States and globally, must be further informed by fine scale research that allows analysis of population responses to cats and assessment of the success of particular management actions.

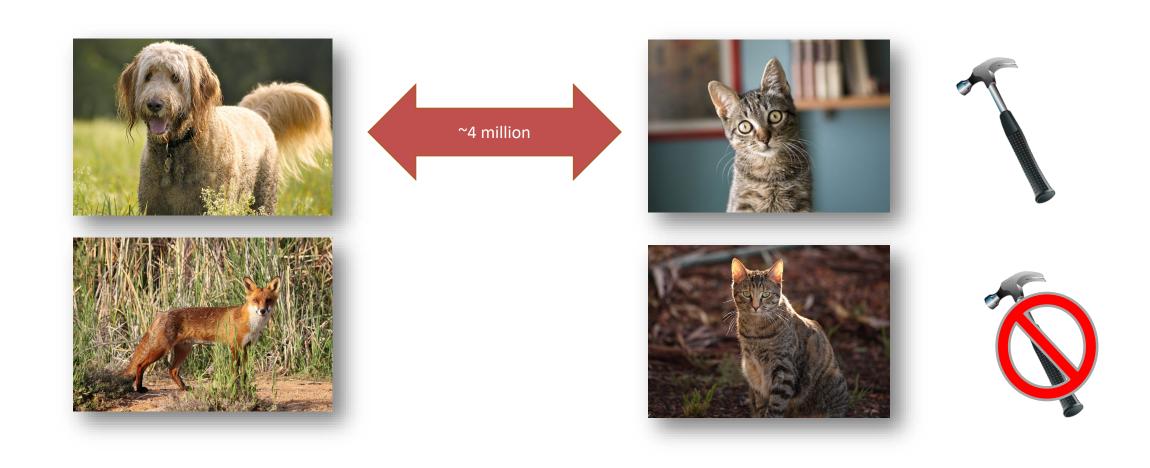
# One difference between dogs and cats



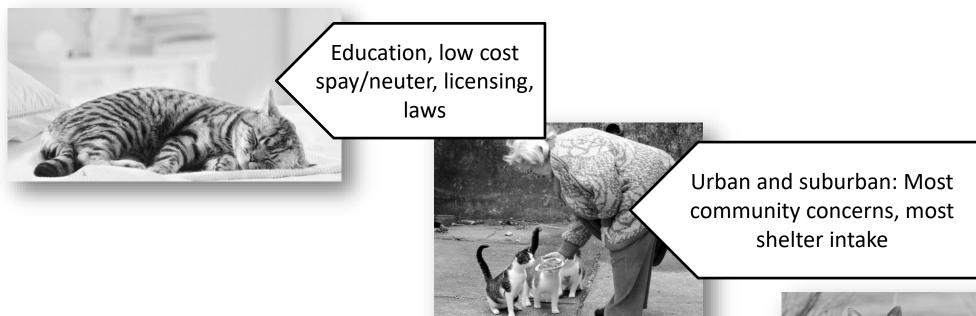
### Another difference between cats and dogs



# Same tool, different results?



### Cat numbers in Australia



- 3.8 million owned cats (150/1000 residents)
  - 89% sterilized
- 700,000 semi-owned and un-owned urban and suburban cats
- 1.4 5.6 million cats in natural environments



# Not a unique struggle

J. Range Manage. 52:398–412 September 1999

### Invited Synthesis Paper:

# Coyote depredation control: An interface between biology and management

We believe there is a need to address the controversy surrounding coyote depredation management, to enlighten resource managers and the general public, and to stimulate discussion and research regarding new avenues of approaching the persistent problem of coyote depredation management.

The resilience of coyote populations dictates that the size of the area involved, the intensity and persistence of effort, timing of removal with respect to vulnerability of prey, as well as normal demographic processes of coyotes, must be considered. Effecting removals as close as practical to the anticipated risks, both in time and proximity, is important.

### False solutions can be harmful

### Nonlethal Techniques for Managing Predation: Primary and Secondary Repellents

John A. Shivik

Wildlife Services, National Wildlife Research Center and Utal University, Logan UT

Adrian Treves

Center for Applied Biodiversity Science, Conservation Interna

Peggy Callahan

Wildlife Science Center, 5463 West Broadway, Forest Lake, M.

"As long as private livestock producers can externalize the costs of predator losses via government-subsidized predator control, they will have little incentive for responsible animal husbandry techniques, i.e., reduce stocking levels, clear carcasses and after-births quickly, confine herds at night or during calving/lambing, install fencing...or adopt numerous other non-lethal preventive methods to avoid depredation (Shivik et al. 2003)."

# Letting go of ineffective methods can save lives

### THE SACRAMENTO BEE 🕏

# Suggestions in changing Wildlife Services range from new practices to outright bans

By Tom Knudson May 6, 2012

"We've pretty much learned how to control coyotes on our own," said Jensen, whose losses to coyotes have declined 60 percent to 70 percent – from about 50 lambs a year when a federal trapper worked there to 15 to 20 today. "Anything that can help you 24 hours a day, like electric fencing, is a good thing."

# Historical shelter-based cat management model

- Ad hoc admission based on community member perception and preference
- Outcomes are adoption, return to owner, relocation (rarely), euthanasia
- "Low intensity trap-adopt-or-kill"
- Significant chunk of \$4 million investment on domestic animal (cat and dog) protection



### Shelter/neuter/return or TNR diversion

- Healthy, free-roaming, unidentified cats
  - Adults and older kittens
  - Regardless of finder's intent
  - Known feeder not required
- Sterilize, vaccinate, ear tip, return to location found
- Operated through shelter (SNR) or diversion to dedicated program (TNR)
- "Semi-targeted-trap-neuter-return"



### False solutions can be harmful

Please re-think this whole approach. Stop normalizing it. It is in many instances not humane and an excuse for devoting the actual resources needed to stop the population of friendly cats on the streets in the first place.

# Equally applicable standard





Please re-think this whole approach. Stop normalizing it. It is in many instances not humane and an excuse for devoting the actual resources needed to stop the population of friendly cats on the streets in the first place.

## Best tool to reach these goals?

- Resolve nuisance situations and complaints
- Return lost cats to their owners
- Find new homes for cats that need them
- Protect the welfare of cats
- Reduce harm caused by cats
  - To wildlife
  - To public health
- Reduce the number of free roaming cats overall

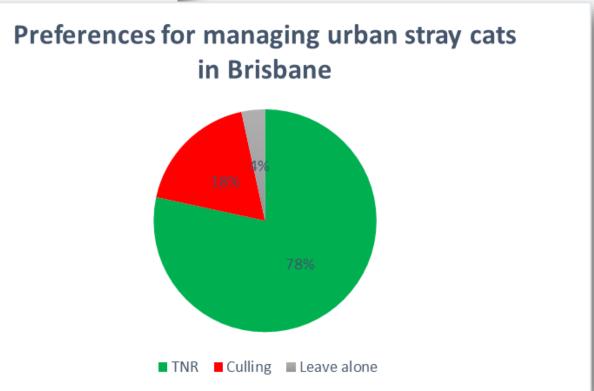
# Reality check

Public Opinions on Strategies for Managing Stray Cats and Predictors of Opposition to Trap-Neuter and Return in Brisbane, Australia

<sup>1</sup>School of Veterinary Science, University of Queensland, Brisbane, QLD, Australia <sup>2</sup>Australian Pet Welfare Foundation, Brisbane, QLD, Australia

Jacquie Rand<sup>1,2\*</sup>, Gina Fisher<sup>2</sup>, Kate Lamb<sup>1</sup> and Andre

A survey of Brisbane residents was undertaken to investigate concats and their management. Surveys were distributed to 84 med City, and were completed by 305 patients and staff. Practices we respondents from a representative distribution of socioeconomic about trap, neuter, and return (TNR) programs for management (79%), chose TNR as their preferred management strategy, while preference to continue the current Brisbane City Council lethal c~1,000 cats annually), and 3.4% selected to leave the cats alone. toward urban stray cats as a function of demographic variables v



### Harm reduction

- Recognizes that imperfect but effective strategies can have greater benefit than hypothetically preferred but realistically unattainable outcomes
- E.g. clean needle exchange for IV drug users, access to birth control for teens

#### Harm reduction principles for healthcare settings

Mary Hawk ☑, Robert W. S. Coulter, James E. Egan, Stuart Fisk, M. Reuel Friedman, Monique Tula & Suzanne Kinsky

Harm Reduction Journal 14, Article number: 70 (2017) | Cite this article 9604 Accesses | 12 Citations | 23 Altmetric | Metrics

#### **Abstract**

#### Background

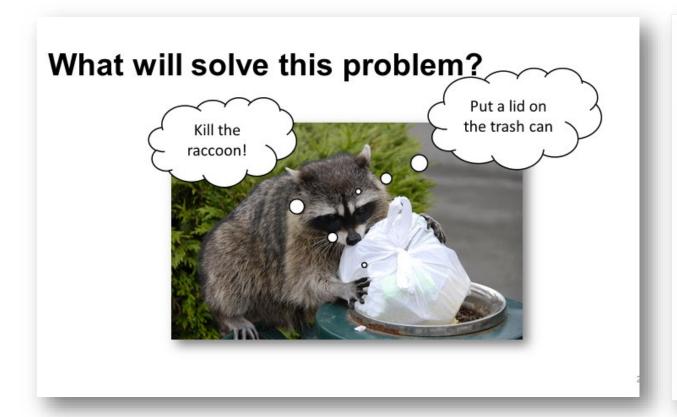
Harm reduction refers to interventions aimed at reducing the negative effects of health behaviors without necessarily extinguishing the problematic health behaviors completely. The vast majority of the harm reduction literature focuses on the harms of drug use and on specific harm reduction strategies, such as syringe exchange, rather than on the harm reduction philosophy as a whole. Given that a harm reduction approach can address other risk behaviors that often occur alongside drug use and that harm reduction principles have been applied to harms such as sex work, eating disorders, and tobacco use, a natural evolution of the harm reduction philosophy is to extend it to other health risk behaviors and to a broader healthcare audience.

# Resolve complaints





### Incentive for effective nuisance mitigation



Raccoons live in all five boroughs of New York City. They can easily adapt to live wherever food and shelter are available. Raccoons living on your property or in your house can cause problems:

- · Raccoons can have rabies and may bite you or your pets.
- · Raccoons can damage your home and property.

#### **Protect Yourself and Your Pets from Rabies**

All mammals can get rabies, a deadly virus that attacks the brain and nervous system. Infected raccoons can give rabies to you and your pets through bites and

#### A rabid raccoon may

- · Appear sick or injured
- · Stumble or have trouble standing · Convulse or shake uncontrollably · Act unusually friendly or aggressive

If you are bitten or scratched by a raccoon, wash the wound with lots of soap and water. See your doctor as soon as possible or visit the emergency room. Call 311 to report a sick raccoon or if a raccoon scratches or bites you or your pet.

If you own dogs or cats, make sure that their rabies vaccinations are up to date, it's the law. All pets 4 months of age or older need a rabies shot and must be revaccinated every one to four years, depending on the vaccine used.



#### Protect Your Home and roperty from Damage

Raccoons are not picky eaters; they will even eat your trash. Raccoons will also live almost anywhere, including under rock piles, fireplace chimneys, hollow walls, attics, the underside of overhangs and beams or sewers. Over time, they can damage your property and become a nuisance.

#### Prevent Raccoons from Entering Your Home

- · Always feed pets indoors to avoid attracting raccoons and other pests.
- Keep your garbage and recycling areas clean, and make sure these containers are tightly sealed.
- · Buy a raccoon-resistant trash container, or place a weight on the lid of your garbage bin.
- . Seal all openings to your home, garage and outdoor sheds.
- Replace torn screens and fix broken windows.
- . Trim tree branches that raccoons could use to climb onto your roof.
- Sprinkle cayenne pepper around your property as raccoons find it irritating. (Use cayenne pepper with caution; it can be very irritating to pets.)
- · Fence in areas underneath decks.

#### Drive Raccoons Out of Your Home

Raccoons look for safe, quiet areas to set up dens, especially female raccoons with litters. An uncomfortable environment may cause raccoons to leave your

- · Never attempt to capture or trap a raccoon.
- . Use bright or flashing lights or play loud music in your attic or other areas where raccoons live.
- · You may need to hire a licensed professional Nuisance Wildlife Control Operator, Visit the New York State Department of Environmental Conservation at dec.ny.gov, and search wildlife control to find a wildlife trapper near you.

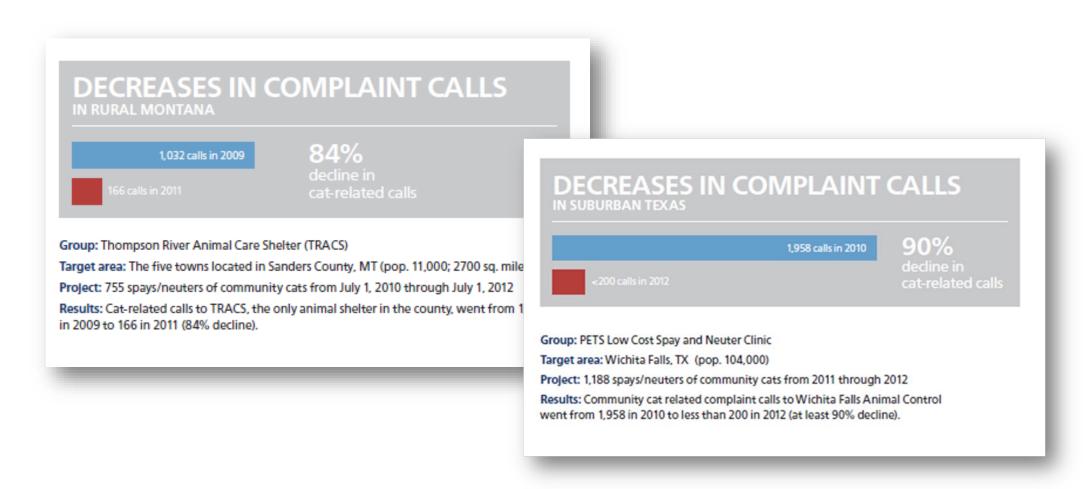
Raccoons in New York City: Keeping Them Away From Your Home and Property -

# Incentive for effective mitigation

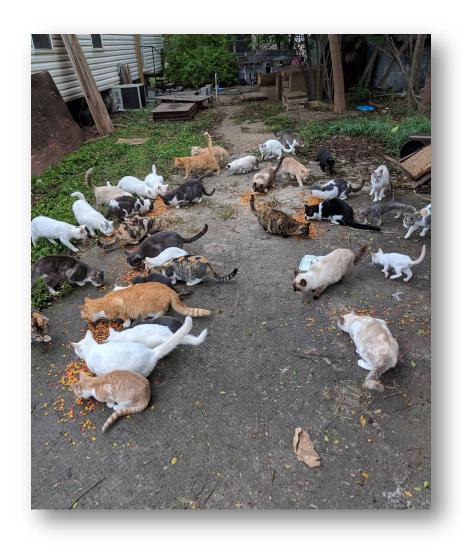
"People no longer could use the shelter as the "Easy Button" — a place to drop off cats without trying to find their own solutions to the problem, sometimes of their own making...The old answer would have been: set traps and animal control will go out and pick up the cats. This option has been eliminated. Now we have a conversation...our job is to help facilitate the public to engage in the desired behavior which could be TNR or helping a neighbor with TNR, not feeding their pets outside which could be attracting cats, making their yard unattractive to cats in various ways, having a stray cat scanned for a microchip, advertising a found cat on Craigslist, etc."

- Tracy Mohr, Chico City Animal Services

# TNR impact on complaint calls



# Ok, but what about this?



# Where do colonies come from?



what can i do about feral cats in my neighborhood



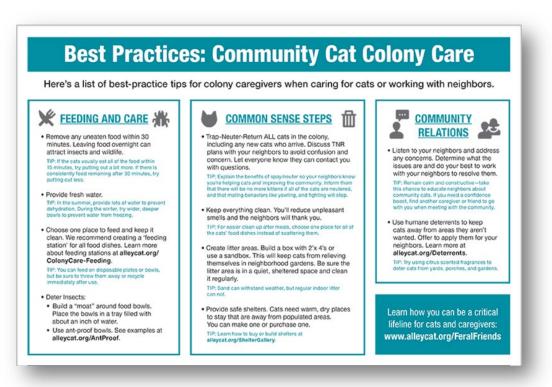


### 3 "SOLUTIONS" THAT ARE REALLY DEADLY TRAPS

- Bringing feral cats to a shelter where they are killed because they are unadoptable.
- Contacting Animal Control to trap the feral cats and kittens. They will kill them.
- Accepting a shelter's offer to lend you a trap. Beware... there are strings attached. In return, you must bring in the cat or kitten, which is then speedily killed.

# Opening the right doors

- Increase public trust and decrease abandonment by ensuring the shelters provide good care and positive outcomes for all cats admitted
- Prevent one abandoned cat from turning into a colony by making TNR accessible and easy
- Open doors of communication through non-lethal options
- Decrease existing colonies over time through attrition and adoption



### Re-unite lost cats with owners





### Reunite cats with owners?

### Search and identification methods that owners use to find a lost cat

Linda K. Lord, DVM, PhD; Thomas E. Wittum, PhD; Amy K. Ferketich, PhD; Julie A. Funk, DVM, PhD; Pāivi J. Rajala-Schultz, DVM, PhD

**Objective**—To characterize the process by which owners search for lost cats and identify factors associated with time to recovery.

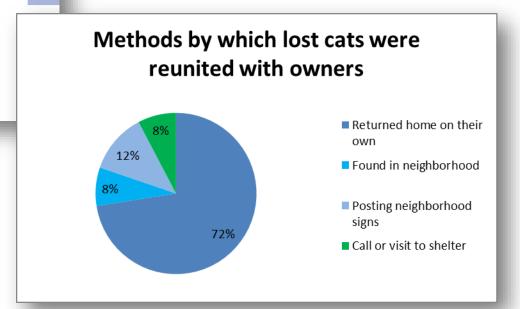
Design—Cross-sectional study.

**Sample Population**—Owners of 138 cats lost in Montgomery County, Ohio, between June 1 and September 30, 2005.

Procedures—A telephone survey was conducted.

**Results**—73 of the 138 (53%) cats were recovered; median time to recovery was 5 days (range, 0.5 to 81 days). Most cats (48 [66%]) that were recovered returned home on their own or were found in the neighborhood (5 [7%]); most other cats were recovered through posting of neighborhood signs (8 [11%]) or calling or visiting an animal agency (5 [7%]). The highest success rate for any of the search methods that were used was only 12% (post-

SMALL ANIMALS



# Larger study

- Random digit dialed national survey of > 1,000 households
- 15% of households had lost a cat
- Of those, 75% were found
  - 1/54 by visit to shelter
  - 48/54 by returning on their own or searching neighborhood

Animals 2012, 2, 301-315; doi:10.3390/ani2020301



Article

### Frequency of Lost Dogs and Cats in the United States and the Methods Used to Locate Them

Emily Weiss <sup>1</sup>, Margaret Slater <sup>2</sup>,\* and Linda Lord <sup>3</sup>

- Shelter Research and Development, Community Outreach, American Society for the Prevention of Cruelty to Animals (ASPCA®), 6260 N. Hillside, Wichita, KS 67219, USA; E-Mail: emily.weiss@aspca.org
- Shelter Research and Development, Community Outreach, American Society for the Prevention of Cruelty to Animals (ASPCA®), 50 Stone Ridge Drive, Northampton, MA 01602, USA
- Department of Veterinary Preventive Medicine, College of Veterinary Medicine, The Ohio State University, Columbus, OH 43210, USA; E-Mail: linda.lord@cvm.osu.edu
- \* Author to whom correspondence should be addressed; E-Mail: margaret.slater@aspca.org; Tel.: +1-217-855-8394.

Received: 25 April 2012; in revised form: 8 June 2012 / Accepted: 11 June 2012 / Published: 13 June 2012

### **Consistent results**

# Search Methods Used to Locate Missing Cats and Locations Where Missing Cats Are Found

Liyan Huang <sup>1</sup>, Marcia Coradini <sup>1,\*</sup>, Jacquie Rand <sup>1,2</sup>, John Morton <sup>3</sup>, Kat Albrecht <sup>4</sup>, Brigid Wasson <sup>4</sup> and Danielle Robertson <sup>4</sup>

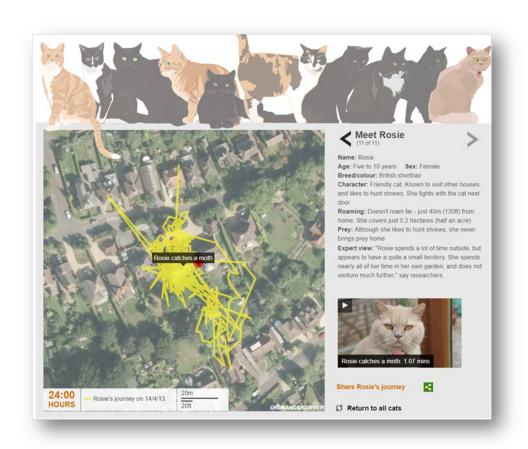
- Gatton Campus, The University of Queensland, Queensland 4343, Australia; rien@live j.rand@uq.edu.au (J.R.)
- <sup>2</sup> Australian Pet Welfare Foundation, Kenmore, Queensland 4069, Australia; jacquie@pe
- <sup>3</sup> Jemora Pty Ltd., Geelong, Victoria 3220, Australia, john.morton@optusnet.com.au
- Missing Pet Partnership, Cloverdale, CA 6105, USA; info@katalbrecht.com (K.A.); bwasson@missingpetpartnership.org (B.W.); danielle@lostpetresearch.com (D.R.)
- \* Correspondence: m.coradini@uq.edu.au; Tel: +61-7-5460-1788

Received: 19 November 2017; Accepted: 20 December 2017; Published: 2 January 2018

"Of the cats that were found alive, the vast majority were found outside (83%). This was followed by the option offered as 'cat being found inside someone else's house' (11%), inside the house where they lived (4%), and inside a public building (2%), therefore less than 2% of found cats were in a shelter or municipal animal facility."

# Lost versus free roaming cats

- Most free roaming cats brought to shelters aren't pets
  - Unowned or semi-owned
- Many friendly cats brought to shelters weren't lost
  - Indoor/outdoor pet cats going on their neighborhood rounds
- Most lost pet cats will not be found at a shelter



### Most at risk



Weiss, E., et al. (2012). "Frequency of Lost Dogs and Cats in the United States and the Methods Used to Locate Them." <u>Animals(2): 301-315.</u>

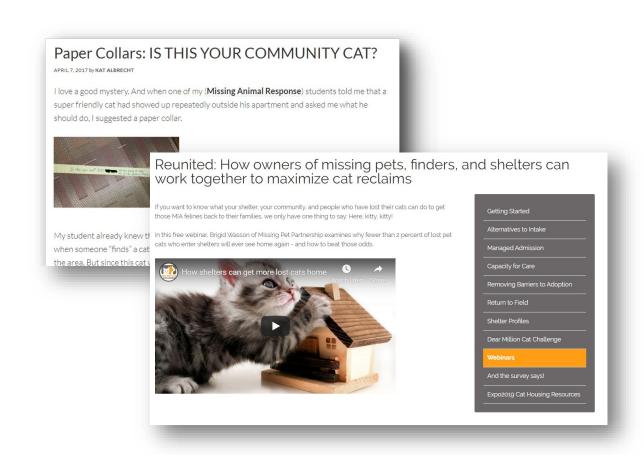
### **SNReturn to owner**

- Friendly free roaming cats in good condition are likely to have someone who cares
- SNR bypasses language, transportation and cost barriers
- Resolves mismatch of timing in when cats are lost and when people look for them
- Educates community members directly about spay/neuter



# When is the shelter the right tool to get lost cats home?

- Efforts already made to reunite the cat in the neighborhood of origin
  - Post, scan, social media, talk to neighbors
- Evidence that the cat is lost or abandoned versus indoor/outdoor pet
  - Length of time/consistency of sighting
  - Body condition and health
- In conjunction with robust, catspecific return-to-owner shelter programs



### Find new homes for cats that need them





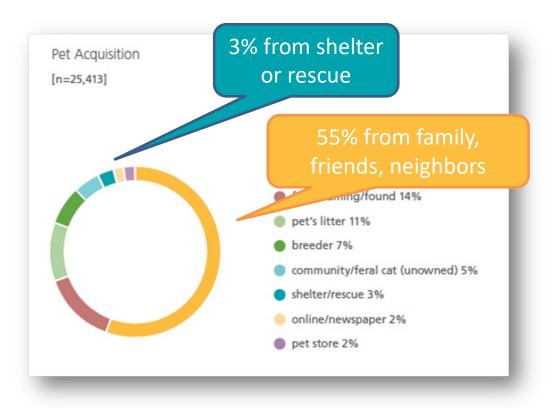
### Find new homes for cats?

- Make shelter surrender safe for people who can't keep their pets
  - Right care, right outcome
- Save adoptions for kittens, owner surrendered cats, cruelty/hoarding cases, and targeted intervention
  - Serious nuisance/public health issues
  - Environmentally sensitive areas



## Close the loop on homes that cats already have

- Underserved community
  members may be more likely to
  obtain pets from a source other
  than a shelter
- SNR for friendly, healthy cats can close the loop on sterilization and vaccination for cats already "adopted" from another source



Humane Society of the United States Pets for Life Report 2014

# Reduce cat numbers to reduce risk to wildlife, public health and cats





### Requirement for population management

- At least 50% 75% TNR required for eradication
- ~4 million pet cats (60% allowed outdoors)
- 700,000 urban and suburban free roaming cats
- Removal short of eradication has no benefit

## Estimation of effectiveness of three methods of feral cat population control by use of a simulation model

Robert J. McCar

Unless > 57% of cats were captured and neutered annually by TNR or removed by lethal control, there was minimal effect on population size.

Use of matrix population models to estimate the efficacy of euthanasia versus trap-neuter-return for management of free-roaming cats

Mark C. Ander

The model predicted effective cat population control by use of annual euthanasia of > 50% of the population or by annual neutering of > 75 of the fertile population.

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#### Removal short of eradication

Wildlife Damage Management Conferences -- Proceedings

Wildlife Damage Management, Internet Center for

1-1-2005

Demographic and Spatial Responses of Coyotes to Changes in Food and Exploitation

Eric Gese

USDA, APHIS, Wildlife Services, National Wildlife Research Center, Logan, UT, USA

Removals brought about a drastic reduction in pack size and a corresponding decrease in density. However, both pack size and density rebounded to pre-removal levels within 8 months post-removal. .. Accounting for both changes in prey abundance and coyote density, litter size was significantly related to total prey abundance/coyote. With increasing prey and reduced coyote density, mean litter size doubled in the removal area compared to pre-removal levels.

#### Removal short of eradication

Effects of low-level culling of feral cats in open populations: a case study from the forests of southern Tasmania

Billie T. Lazenby A,B,D, Nicholas J. Mooney and Christopher R. Dickman A

ASchool of Biological Sciences, A08, Un BDepartment of Primary Industries, Parks Tas. 7000, Australia.

<sup>C</sup>PO Box 120, Richmond, Tas. 7025, Au

<sup>D</sup>Corresponding author. Email: Billie.Laz

"Contrary to expectation, the relative abundance and activity of feral cats increased in the cull-sites, even though the numbers of cats captured per unit effort during the culling period declined. Increases in minimum numbers of cats known to be alive ranged from 75% to 211% during the culling period, compared with pre- and post-cull estimates."

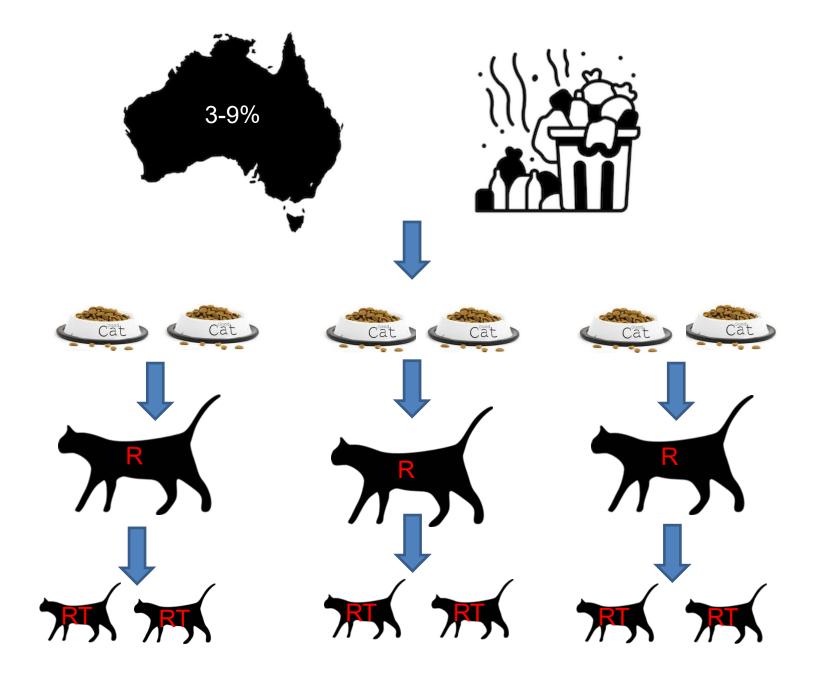
#### **WORSE THAN NOTHING**

"This study provides evidence that ad hoc culling of feral cats may be not only ineffective, but has the potential to increase the impact of feral cats in open populations."

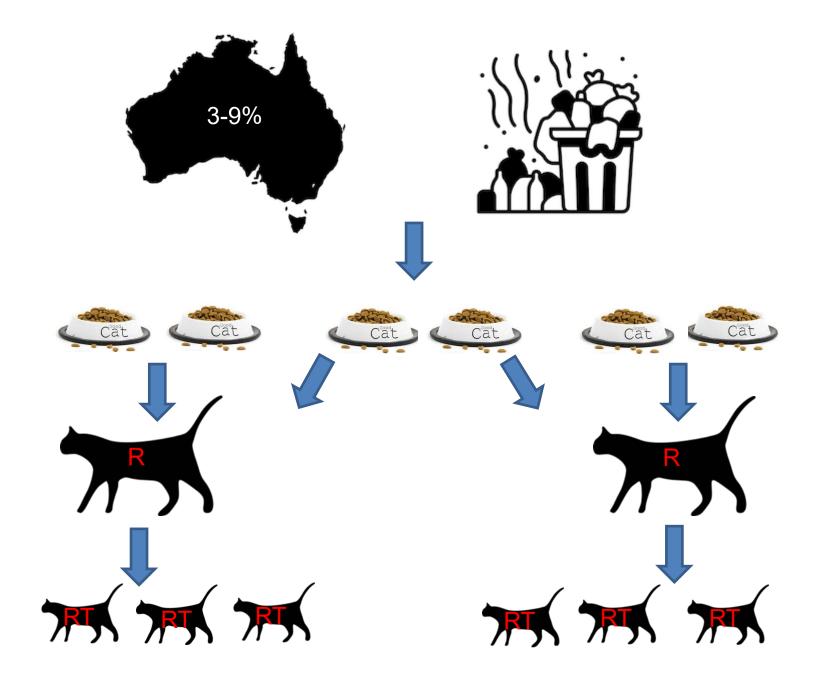


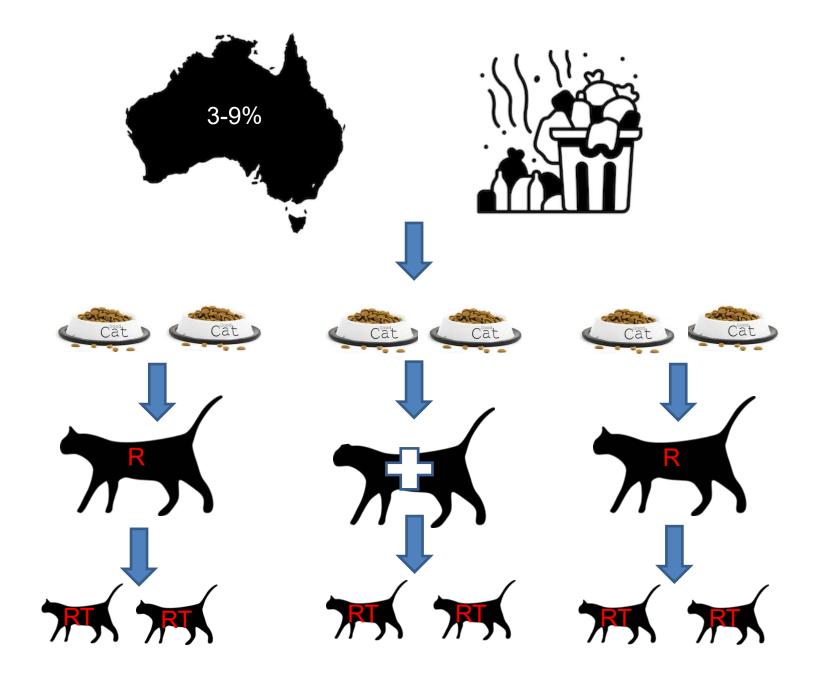
## So why would SNR work?











Study of the effect on shelter cat intakes and euthanasia from a shelter neuter return project of 10,080 cats from March 2010 to June 2014

Karen L. Johnson<sup>1</sup> and Jon Cicirelli<sup>2</sup>

- National Pet Alliance, San Jose, CA, United States
- <sup>2</sup> San Jose Animal Care and Services, San Jose, CA, United States
- Euthanasia down 75%
- Euthanasia due to URI down 99%
- Cats picked up dead down 20%
- Intake (cat and kitten) down 29%



- 11,749 cats sterilized and returned over 3-year period
- Euthanasia down 84%
- Calls for dead cat pickup down 24%
- Intake down 38%

## Managed is better than unmanaged



Elizabeth VanWormer, Patricia A. C

Infection prevalence differed among sympatric felids, with a significantly lower prevalence for managed feral cats (17%) than mountain lions, bobcats, or unmanaged feral cats subsisting on wild prey (73–81%).

## The right tool for the job

- SNR/TNR diversion for most healthy unowned adult cats brought to the shelter
  - Healthy unsocial cats to stabilize populations in the community and limit euthanasia at the shelter
  - Healthy friendly stray/free roaming cats to maximize return to owner and spayed/neutered/vaccinated cats in homes
  - As an avenue to open doors with community members who support non-lethal control, in order to allow education and harm reduction

- Traditional shelter pathway for owned cats and:
  - Unhealthy stray/free roaming cats (sick/injured/poor body condition)
  - Cruelty, abuse and neglect cases
  - Interventions for significant nuisance situations/public health or wildlife risk
  - Social kittens on a pathway to adoption
  - As a solution for community members seeking a trustworthy organization where they can be assured that cats will receive appropriate care and outcomes, in order to prevent abandonment or neglect

## Neither SNR nor Shelter intake will be right for every situation





## Thank you!!!



