American Society of Mammalogists

BRUCE D. PATTERSON, President The Field Museum 1400 S. Lake Shore Drive Chicago, IL 60605-7754 (312) 665-7750 FAX: 665-7754 Email: bpatterson@fieldmuseum.org

GUY N. CAMERON, President-Elect Department of Biological Sciences University of Cincinnati Cincinnati, OH 45221-0006 (513) 556-9740 FAX: 556-5299 Email: g.cameron@uc.edu

ROBERT M. TIMM, Vice-President Department of Ecology & Evolutionary Biology University of Kansas Natural History Museum Dyche Hall, 1345 Jayhawk Blvd. Lawrence, KS 66045-7561 (785) 864-4180 FAX: 864-5335 Email: btimm@ku.edu

> Dr. Bradley J. Gruver Acting Chief, Bureau of Wildlife Diversity Conservation Florida Fish and Wildlife Conservation Commission 620 South Meridian Street Tallahassee, FL 32399-1600

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SUZANNE B. McLAREN, Recording Secretary
O'Neil Research Center, Carnegie MNH
5800 Baum Blvd.
Pittsburgh, PA 15206-3706
(412) 665-2615 FAX: 665-2751
Email: mclarens@carnegiernuseums.org
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RONALD A. VAN DEN BUSSCHE, Secretary-Treasurer Department of Zoology 430 Life Sciences West Oklahoma State University Stillwater, OK 74078 (405) 744-9679 FAX: 744-7824 Email: ravdb@okstate.edu

BARBARA BLAKE, Journal Editor University of North Carolina at Greensboro Dept. of Biology, Box 26170 Greensboro, NC 27402-6170 (336) 334-4965 FAX: 334-5839 Email: bhblake@uncg.edu

20 May 2003

Dear Dr. Gruver:

The American Society of Mammalogists (ASM) is a non-profit, professional scientific society consisting of over 3,000 members from the United States and 60 other countries worldwide. Founded in 1919, the ASM is the world's oldest and largest organization devoted to the study of mammals. The ASM is deeply concerned about the future of mammals worldwide in increasingly threatened habitats, and thus we strongly support mammalian conservation. When decisions are made affecting the conservation of mammals, the ASM promotes sound conservation planning based on quality research and scientific accuracy.

We understand that the Florida Fish and Wildlife Conservation Commission will soon consider adopting a policy dealing with the impacts of feral and free-ranging domesticated cats (*Felis catus*) on Florida's wildlife populations. Although animal control is never popular and often controversial, it is increasingly necessary to control unanticipated and unwelcome effects of development. While our Society subscribes to humane treatment of individual animals, the survival of species and the health and integrity of entire ecosystems must take precedence, I am writing to lend support for adopting a policy to counter the significant negative impacts of feral and free-ranging cats in Florida. The ASM firmly supports the adoption of a tough new policy on feral and free-ranging cats in Florida, one that prohibits the release, feeding, or protection of cats on FWC-managed lands or other public lands that contain significant wildlife habitat. We specifically oppose the creation or continuance of Trap, Treat, Vaccinate, Alter, and Release (TTVAR), Trap, Neuter, and Release (TNR), or related programs that manage feral or free-ranging cat populations. Ultimately, we seek

actions to eliminate the threat that cats pose to the viability of listed species in Florida, to provide technical advice, policy support, and partnerships to land managers and land management agencies in order to prevent the release, feeding, or protection of cats on public lands that support wildlife habitat, and to adopt new rules to minimize the impact of feral and free-ranging cats on native wildlife populations.

As you are no doubt aware, a recent study by researchers at University of Florida found that some 15 million cats in Florida spend all or part of their time outside preying on wildlife and that they kill as many as 271 million small mammals and 68 million birds annually. These are staggering mortality numbers that no doubt significantly impact vertebrate populations throughout the state. A major concern to us is the significant negative impact of cats on the insular and other vulnerable mammals native to Florida, such as the six endangered subspecies of the beach mouse, *Peromyscus polionotus*, occurring along the coasts of Alabama and Florida; other imperiled species include the Lower Keys marsh rabbits, Key Largo cotton mouse, and Key Largo woodrat. For example, the Lower Keys marsh rabbit is a federally endangered species with an estimated population of only 100-300 individuals. It is appalling that a recent study found that free-roaming cats were responsible for 53% of the deaths of these endangered rabbits over one year's time!! With such high mortality from feral and free-ranging cats, this species may become extinct in the very near future unless a policy is initiated at the state level to stem the destructive toll of these cats.

The ASM's Conservation Committee has explored the issue of feral and free-ranging cats and includes the following information in the hope that it may be useful to you:

The domestic cat (*Felis catus*) has been associated with humans as pets and pests since the species' domestication from native African stock >4,000 years ago. Domestic cats were introduced to the Europe >2,000 years ago and to North America within the last 400 years. They are true carnivores in the wild and both efficient hunters and opportunistic scavengers with generalist food habits when associated with humans. Current population estimates for pet cats in the United States exceed 65 million (AVMA 1999, American Pet Products Manufacturers 2000), and as many cats may be living as ferals. A female cat can produce up to three litters of 4-9 kittens per year. Thus the potential for increase is enormous, especially if cats are protected and well fed. For example, 5 cats introduced to an island in 1948 resulted in a population of 2000 in less than 30 years (van Aarde 1979). The exact numbers of cats born in the U.S. each year is unknown, but the current population size and recruitment rates of pet cats in the United States exceeds Society's capacity to care for and house them. Thus, the position statement on Dog and Cat Population Control by the American Veterinary Medical Association (AVMA) identifies population control of cats to be of major concern. Aside from humanitarian reasons, cat population control is necessary because of the increasing impact of cat predation on native wildlife populations. Cats are efficient and opportunistic hunters with generalist food habits, and prey on the most available and easily caught animals. Because of their strong natural propensity to hunt, even domestic cats attack and kill native wildlife, regardless of how well fed or satiated they are (Adamec 1976). For these reasons, predation by feral and free-ranging cats must be discouraged.

The negative impact of free-ranging cats on native wildlife populations is well documented. Considerable evidence shows that predation by feral cats has caused the decline and extinction of island populations of native wildlife (van Rensburg and Bester 1988, Atkinson 1989, Copley 1991, Newsome 1991, Trueman 1991, Tershy and Croll 1996).

Subsequent population recoveries of susceptible species after the removal of feral cats provide additional evidence of the effect of cat predation (Dickman 1996, Tershy and Croll 1996). In mainland areas, predation by feral cats threatens the continued survival of local populations (Liberg 1984, Churcher and Lawton 1987), and has been shown to significantly impede re-introduction programs for endangered species (Johnson 1991, Gibson et. al. 1994, 1995; Christensen and Burrows 1995, Short et al. 1995, Dickman 1996).

Because cats vary their diet according to prey availability, wildlife species killed by cats will differ according to location and opportunity. Rural cats kill many more wild animals than do urban and/or suburban cats (Eberhard 1954, Churcher and Lawton 1987, Fitzgerald 1988, Mitchell and Beck 1992, The Mammal Society 1998). Up to 90% of the diet of free-ranging rural cats consists of wild small mammals and birds; in general, prey types are 70% small mammals and 20% birds by species (Fitzgerald 1988). However, because the hunting instinct is not suppressed by supplemental feeding, even well fed house cats hunt and kill prey when allowed outside (Adamec 1976, Barratt 1995). Free-ranging domestic cats kill an average of between 3 (Fiore and Sullivan 1999) to 40 (Paton 1990, Trueman 1991, The Mammal Society 1998) wild animals per year, although some individuals can kill over 1,000 animals per year (Bradt 1949).

Free-ranging cats may also impact native wildlife indirectly by competition with native predators. Because they share similar preferences of prey types, large concentrated populations of cats can reduce prey availability for such predators as weasels and raptors (George 1974, Erlinge et al. 1984). Feral cats may displace similarly-sized native predators from preferred habitat, as was the case with endangered Channel Island foxes (Kovach and Dow 1985).

Apart from the direct effects of predation, free-ranging cats impact wildlife populations by acting as disease reservoirs. Impact on rare species may be disproportionately greater because a decline in genetic heterozygosity may increase a species' susceptibility to disease (O'Brien and Evermann 1988). Domestic cats can transmit feline leukemia virus to mountain lions (Jessup et al 1993) and may have recently infected the endangered Florida panther with feline panleukopenia (feline distemper) and feline immunodeficiency virus (FIV, Roelke et al 1993). Because as many as 1 in 12 domestic cats is positive for FIV (AVMA 1999), free-ranging domestic cats are of considerable importance as a reservoir and agents of transmission for this disease. Toxoplasmosis, a sporozoan parasite carried by cats, is a threat to Australia's endangered Eastern Barred Bandicoot (Obendorf and Munday 1990, Miller et al. 1994) and our own endangered Channel Island fox (Garcelon et al. 1992) and southern sea otter (unpubl. report, Univ. of California - Davis). The same disease is a significant concern as a health hazard to humans (Warfield and Gay 1986). Other indirect impacts include hybridization with wild small felid species, such as such rare and endangered species as the European wild cat *Felis sylvestris* and African wild cat *Felis lybica* (IUCN 1996).

Capture, neuter, vaccination, and release programs (e.g., TTVAR, TNR) have been endorsed as a means to achieve goals of cat welfare and enhanced urban amenity. Proponents of these programs claim that stable non-breeding feral cat colonies represent a viable conservation solution to the alternative of culling stray and feral cats. Unfortunately, these programs can never ensure that all individuals in a population are trapped to control of disease and reproduction. Because of recreational hunting by otherwise satiated cats, provision of food in managed cat colonies does not affect predation pressure on local wildlife. Therefore, this approach offers no protection to wildlife. Numbers of free-ranging cats in the United States are undeniably large, and even conservative estimates for the numbers of wildlife killed and injured by cats increase as urbanization leads to ever greater habitat fragmentation and loss.

To minimize the impact of cat predation on populations of native wildlife, We recommend that all intrusions by cats into ecologically significant habitat should be prevented or discouraged. In view of the foregoing, the ASM supports the following:

1. Actions by federal, state, and local governments to control and reduce the "outdoor" cat population by:

- a) restricting the activities of domestic free-ranging cats;
- b) eliminating feral cats and their colonies humanely and efficiently from public and private lands;

2. Actions by federal, state, and local governments, and private organizations to ban or eliminate use of managed feral cat colonies from public lands, and discourage feral cat colonies on private lands;

3. Efforts to educate the public about cat impacts to ensure skilled and effective participation in control activities--ASM will gladly lend its expertise in scientific research and management of mammalian species;

4. Efforts to improve our understanding of the ecology of feral cats and their impacts on wildlife populations--ASM will furnish its expertise in scientific research and management of mammalian species to collect and disseminate information

5. Endorsement, in concept, of the "National Keep Your Cat Indoors" campaign promoted by the American Bird Conservancy

We are happy to provide you with these comments, and wish you success and progress in your upcoming deliberations on this important subject. We would greatly appreciate hearing about what is decided on this issue, and remain available to you as a source of technical expertise if needed.

Respectfully submitted,

Tall Cone

Bruce Patterson, Ph.D. President American Society of Mammalogists

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