The Small Carnivore Specialist Group includes among its mandate the gathering and dissemination of data and knowledge for a group of species seemingly unnoticed by many conservationists, researchers, government management authorities and funders. In fact, an emerging major source of data on small carnivores is the ancillary information from projects about larger and more charismatic species (e.g. Jaguar *Panthera onca*), which are much easier to raise funds for and consequently the focus of many researchers and non-government organisations. A common example is the use of data from camera-trap surveys of such animals (see González-Maya *et al.*).

There is great disparity in the amount of published information and hence our ‘state of knowledge’ between the small carnivore species. Most of the last 20 issues of *Small Carnivore Conservation* have a strong predominance of coverage towards Asia, especially Southeast Asia. This is strategic because this is where the greatest threats lie, but also it reflects: 1) limited evolving process to capture information in many other regions; 2) huge regional deficiencies in data generation due to both paucity of research, and political and social dimensions beyond our control; and 3) that only a few of the projects that do exist publish their data. The two glaring geographic gaps for small carnivore information are Latin America and Africa. Both contain species of small carnivores which are common but about which we know almost nothing. Thus, we felt it prudent to focus occasional special issues of *Small Carnivore Conservation* on little-known regions, to take stock and consolidate what we do know into an accessible form, and to highlight priorities for future research.

Following the IUCN Red List Assessment for 2008 we are identifying a network of experts in the various regions and for each species. With the International Mammalogical Congress to be held in Mendoza, Argentina, in August 2009, the American continents were the clear first choice to trial this approach. Indeed, this special issue is published ahead of its normally scheduled date to coincide with the Congress.

We started organising this issue with three questions: 1) what is the next step after defining threatened species and clarifying the status of several?; 2) can we fill critical data gaps?; and 3) how do we keep species off the IUCN Red List to begin with? First, we wanted to verify and update the conservation status for all threatened species. Second, we wanted a long hard look at each species considered Data Deficient. Finally, we wanted to use experience gained in species recovery to highlight the need to move from discussions of threats and declines to applied research and on-the-ground action.

In the regional context, this seemed not so daunting. In general, small carnivores of the Americas are not faring as badly as in Southeast Asia, for example. Of the 46 species of native small carnivores (*Procyonidae*, *Mephitidae* and *Mustelidae*, including for this purpose, otters) recognised here for the Americas, only eight (17%) are threatened and five (11%) are considered Data Deficient (Belant *et al.*). These figures do not include Eastern Mountain Coati *Nasua nelsoni*, not currently assessed on the IUCN Red List (but see Cuaron *et al.*, for preliminary assessment) or the two introduced species, Stone Marten *Martes foina* and Small Asian Mongoose *Herpestes javanicus*. In sum, four species of small carnivores are threatened and not recovering, and therefore need urgent conservation attention. Two (*Pygmy Raccoon* *Procyon pygmaeus* and *Dwarf Coati*) occur only on a single small island off the Caribbean coast of Mexico, another (*Pygmy Spotted Skunk* *Spilogale pygmaea*) along the Pacific Coast of Mexico, and the fourth (*Colombian Weasel* *Mustela fellepi*), in the high Andes of Colombia and Ecuador, is known only from a handful of records.

Have we learned anything from the Black-footed Ferret *M. nigripes* recovery (Jachowski & Lockhart) to help recover other threatened species? The answer is a resounding ‘yes’, but there is no secret or fixed formula to successful recovery. The longer we wait, the more resource-intensive recovery becomes. It takes political and social will as well as money, none of which is easy to come by in regions with larger issues at hand, and several hundred species requiring conservation attention and action (such as Mexico and Colombia).

However, one would think that the conservation community could pull together to save two charismatic small carnivores and a handful of other threatened endemic taxa on a small Caribbean tourist destination (Cozumel) in the Mexican ‘Riviera’. The scientists and politicians have done so, but only after much of the remaining habitat was lost to development and land conversion. To add insult to injury, a series of hurricanes flattened almost all remaining habitat, making the situation even more urgent. These remaining populations are severely reduced, and mustering the required political and social forces is a daunting task, especially with so few individuals remaining in the wild.

The Colombian Weasel and mountain coatis, all of the Northern Andes, suffer both from extensive habitat alteration and lack of research and conservation. As the banner suggests in Bogota airport, ‘Drugs, cartels and wars are so 1990s: this is the new Colombia’ - threats to these species are not just the often assumed coca and guerilla warfare problems. The weasel is a high-elevation species perhaps threatened as much by misidentification as by deforestation through logging and for farmland, urbanisation and fragmentation (see Burneo *et al.* and Tirira *et al.*). Similar syndromes affect several other Andean species, and the scarcity of information forestalled assessing the then Mountain Coati for the 2008 Red List: it is now considered to be two species (see Balaguera-Reina *et al.*, Helgen *et al.*).

To clarify the necessary links between science and policy which affect recovery, we need to understand if the Black-footed Ferret is recovering as a result of listing on the US Endangered Species Act (ESA). Most Latin American countries also have national Red Lists and national species priority lists: the principal difference from the ESA is that the ESA has ‘teeth’: legal ramifications (e.g. penalties for harming Critical Habitat), financial sup-
pport to research, recovery, habitat conservation and an enforce-
ment body (the US Fish & Wildlife Service), not to mention nu-
merous independent organisations which monitor recovery efforts
(see Jachnowski & Lockhart). However the ESA, weakened in
recent years, is not without its problems. We do, however, con-
clude that in bridging science and policy, we can use national lists
to guide laws which are enforceable.

The Black-footed Ferret recovery reflects a combination of
funding, will within national, local and tribal governments, public
support, and a dedicated group of scientists who went out on a
limb to save this species. Vital is the interagency, interdiscipli-
ary, strategic conservation and recovery plan joining politics and
science for a common good. Importantly, threats diminished
following ongoing adaptive research, education and community
outreach. However, it has taken nearly 20 years and millions of
dollars, and is not over yet. We do not have resources on this scale
for each threatened small carnivore, highlighting the need, strate-
gic and financial, for proactive measure to keep species from be-
coming threatened and to invest in win–win situations for humans
and carnivores. Adequate research to clarify the status of little-
known species (Balaguera-Reina et al., Kasper et al., Prevosti et
al.) and regions (Oliveira), and the effects of potentially threaten-
ing processes (Proulx) may allow action before a crisis situation is
reached: this is more desirable than recovery plans and conserva-
tion fire-fighting.

That the Black-footed Ferret is still with us means that we
can halt extinction, not just purely to save a small carnivore, but
to benefit Homo sapiens. This species offers ecosystem services
for human welfare and wellbeing, living in obligatory commun-
ion with prairie dog Cynomys spp. colonies, the proliferation of
which enhance soil quality and native plant communities of the
prairies. That prairie ecosystems and soil quality also benefit us
should come as no surprise.

We learned several things in assembling this issue. We know
a lot less about small carnivores of the Americas than we thought,
especially in Latin America. We realised that as scientists and
biologists we are not doing a very good job ‘selling’ our products
to meet shifting global information demands. To show the
importance of small carnivores in many ecosystem services (e.g.
controlling pest rodents) will reach new audiences, resources and
conservation tools. To focus some efforts on community-scale
projects to reveal both the species-level data and the broader con-
text of ecosystem services rendered – then maybe we can muster
what we need to keep species off the threatened list. We cannot
change the ebbs and flows of global funding but we can do a better
job of tying our science and our species of interest into the context
of humanity.

In sum, five research and conservation priorities seem espe-
cially relevant to Latin America (where lie most of the data gaps
and threats), but can be applied elsewhere:

1. **Recovery**: to keep species off the various threat lists, we need
examples of success and lessons learned from unsuccessful ef-
forts. Documentation of what it takes to recover threatened small
carnivore species, reverse population declines and keep species
out of threat categories, is rare.

2. **Inventory and monitoring research**: at least five species are
considered Data Deficient: they very well could be threatened, so
clearly are research priorities. Interventions for species already
threatened are urgent, with monitoring of populations to assess
progress.

3. **Data sharing and accessibility**: some data available are not read-
ily and widely accessible (grey literature, regional reports, etc.).
Even more lamentable are the transitory potential data, generated
but never captured for eternity, which we need to make available
through data sharing and partnerships, e.g. collating by-catch data
and then placing them in the public domain.

4. **Education**: we need to educate ourselves, decision-makers and
the public on the importance of these species intrinsically, and as
part of the ecosystem, and the vital underpinnings of healthy eco-
systems to human health and even persistence.

5. **Interdisciplinary studies**: we need to continue to work collabo-
ratively and extend our cross-boundary networks of government
management agencies, scientists, conservationists and donors, to
ensure the conservation of small carnivores. Linkage of ecologi-
cal and social sciences to answer complex questions about human
aspects, interactions and benefits from small carnivores is so far
rare.

We only hope that herein we have encouraged the process by
highlighting both species-specific and regional issues – and that
more people in the region will see Small Carnivore Conserva-
tion as a place both to publish their research, observations, lessons
learned and notes, and to which they will alert more generalist
conservation practitioners.

— Jan SCHIPPER
Kristofer M. HELGEN
Jerrold L. BELANT
José GONZÁLEZ-MAYA
Eduardo EIZIRIK
Mirian TSUCHIYA-JEREP
(Guest Editors)