Small carnivores, red listing, and *Small Carnivore Conservation*

The IUCN Global Mammal Assessment is evaluating the global extinction risk of all mammal species against the IUCN Red List Categories and Criteria. The Red List status of over ¾ of the world's mammals was last evaluated in 1996, and the 2008 Red List will contain a systematic reassessment of all mammals. The July 2006 Hanoi Small Carnivores workshop and subsequent follow-up reveal the challenges for doing this with 'our animals'. Accurate Red List assessments underpin conservation prioritisation, and their supporting documentation reveals the interventions, if any, needed for each species. This documentation collates the 'state of knowledge' of each species across its range, particularly about threats and conservation measures. This is a challenge at two extremes. Whereas well-studied species like elephants, some whales and big cats may have massive amounts of relevant data, from a huge geographical area, to be synthesised into manageable form, for all but a few small carnivores there is a dearth of such information. Many species' Red List assessment can use only fragmentary data, inference and suspicion, instead of the more desirable quantification of population and distribution trends.

The Red List assessment process includes consultation and external review. This revealed differing conclusions, sometimes strongly at variance, for some small carnivore species. At any given point in time, the one 'correct' global Red List assessment for each species is the one that would reflect complete understanding of its conservation status. There never is such perfect knowledge, but it should be possible to reach a close consensus through consistent interpretation of Red List Categories and Criteria in relation to available information. The review process exposed three chief challenges with red-listing the small carnivores. First, and simplest, was the complexity of the Categories and Criteria: it takes some practice to use them effectively, and this was many people's first experience.

Second, the genuine paucity of information is an obvious challenge for species known only by a handful of records, e.g. Indonesian Mountain Weasel *Mustela lutreolina*. But it may also bedevil species recorded frequently. To give a single example, even for a species frequent in degraded habitats, there is rarely even one scientifically credible study (let alone multiple investigations from across the species's range!) of whether it can survive in such habitats indefinitely, or whether animals are simply dispersing into them from adjacent better quality habitats. In the latter case, serious reduction in the extent of good quality habitat would doom populations in degraded habitats. Therefore, the long-term impact of the rapid and spatially widespread habitat changes occurring across some tropical areas, notably most of forested Asia, is difficult to evaluate for such species. While there is some scope for more critical assessment of existing information, this deficiency can be addressed only by a great expansion of applied research.

Third, many data that do exist are not in the public domain. Surveys specifically of small carnivores are rare in most of those countries where they are most needed, where habitat is changing rapidly and hunting is barely restrained. Nonetheless, broader biological surveys, for conservation system planning, for Environmental Impact Assessment (EIA) and for 'flagship' species, and naturalists' leisure-time observations, may be far from absent. Even though some 'data' are best ignored (e.g. EIA surveys not obviously unbiased), there is still a large, dispersed, trove of reliable information about small carnivores. Some data appear in reports to governments and/or donors, many remain in surveyors' field notes, photographs and memories. Camera-trapping projects routinely yield more photographs of small carnivores than of target species (e.g. bears or big cats). This issue of *Small Carnivore Conservation* reviews such 'by-catch' data for one of the least biologically-known countries on earth. Some may question the merit of extensive data upon 'common' species, yet many of today's rarities were formerly numerous. Most of the world lacks mammalian biodiversity monitoring programmes, so the best must be made of any information that comes up. "Common Palm Civet *Paradoxurus hermaphroditus* still common in X national park" is certainly not headline news, but it is news of a sort. And combining such results from multiple places allows much more authoritative Red List status assessment for a species than does reference to the 'standard' sources, many of which are recycling a portrayal of the situation of decades ago.

The better the publicly available information base, the more likely that the Red List category assigned will be the correct one. All specialist group members and other readers of *Small Carnivore Conservation* can assist in this. We must place our own unpublished information on record, and support colleagues to do likewise. Often, the first step is to help the 'wider world' understand that even incidental data may have great conservation value. *Small Carnivore Conservation* exists to further the conservation of small carnivores, and will continue to be the predominant journal of long-term record for reliable information on field status of species, through regional review (e.g. the small carnivores of a country or protected area), species 'state of knowledge' synthesis (a single species across all or part of its world range) or simply incidental records. The revised Red List assessments for all small carnivores will soon be finalised, but this is *not* the end of the process! The Red List process is an iterative one, based on tracking and review of emerging data. So, good data, with good public access to them, on field status are an eternal need.

THE EDITORS