

How many snake species occur in Nepal, and how many of these are dangerous?

So far, 89 species of snake have been recorded from Nepal, but the exact number remains to be determined. Seventeen species have the front-fanged type of venom apparatus and thus are considered to be highly venomous and dangerous. Among the venomous species which are found in the Terai belt of Nepal includes: *Naja Naja* (common cobra), *Naja Kaouthia* (monocled cobra), *ophiophagus Hannah* (king cobra), *Bungarus cacruleus* (common Indian Krait), *Bungarus Fasciatus* (branded krait) and the *Daboia russeli* (Russel's viper).



Fig. 63. Spectacled Cobra (*Naja naja*) showing its defensive display with vertically raised anterior body and spread 'hood'.
U. Kuth



Fig. 77. Russell's Viper (*Daboia russeli*), adult specimen from Pune, Maharashtra, India.
D. A. Warner



Fig. 50. Juvenile Banded Kraits (*Bungarus fasciatus*) have a pattern of white to cream and black rings on the body. The white rings become yellow as the snakes grow.
W. Grossmann



Rotary Club of Kathmandu Mid-Town

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Snakebite Prevention, Awareness, and Treatment in Nepal

We are looking for a partner who will join us in a Global Grant that will: 1) promote the prevention of snake bites; 2) enhance public awareness on first aid when bites do occur; and, 3) give specialized information to healthcare workers on treatment.

Snakebite is one of the most neglected public health issues among the poor rural communities living in Nepal's tropical Terai region due to the high population density and widespread agricultural activities. This region is home to numerous venomous snake species and the country as a whole lacks a functional snake bite control program. While the true burden of snake bite in Nepal is not accurately known, an estimated annual incidence of 1162 per 100,000 population has been reported. Every year during the rainy season (June-September) overwhelming anecdotal evidence highlights the fact that snakebites are a public health concern.

Snakebite is a problem particular to developing countries – it is has been neglected and virtually forgotten by western medicine – it is a 'poor man's problem'. Death by snakebite in Nepal has not been addressed either by the government or by donor agencies. Over the past two years, our **Rotary Club of Kathmandu Mid-Town** has made some initial efforts to alleviate suffering in this area by contributing to the multi-faceted work of Dr Sanjib Sharma (BP Koirala Institute of Health Sciences, Dharan, Nepal) who is dedicated to helping solve this problem and who is considered to be the foremost snakebite expert in the country.

Contact Us: Please see our web page to learn more about our Club (<http://rotarymidtown.org.np/>).



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Rotary Club of Kathmandu Mid-Town Rotarians **Dr Buddha Basnyat** (left) and **Dr Isa B Khadka** (right); **Dr Sanjib Sharma** of the BP Koirala Institute of Health Sciences in Dharan, Nepal (center).

Our vision

A Nepal where no one dies from snakebites.

Our Mission

- To share information with communities so that they are well-informed on how to prevent snakebites and know how to respond with appropriate first-aid when snakebites occur.
- To share information with and to train healthcare workers so that they are well informed on treatment options.

Our Goal

To reduce the occurrence of morbidity and mortality due to snakebite in Nepal.

How can Rotary help?

We are looking to partner with a Rotary Club who will work with us on a Global Grant. Our novel approach will be to tackle the problem by disseminating information. This will be an ongoing effort to distribute general first aid and prevention information to the public at large and specialized medical information to healthcare workers. We are still in the process of discussing with everyone involved but our initial guess is that the Global Grant will be of approximately \$50,000 USD.

Our grass-roots tactic will be to tackle the problem on three fronts;

- 1) To bring the basic facts on snakebite prevention and first aid to the attention of the general public in Nepal's snake-bite prone areas by using mass media such as television*, radio*, and social media*.
- 2) To publish a specialized educational handbook for healthcare practitioners and to publish more general posters/pamphlets for the community at large. (Note: the text has already been prepared by Dr Sanjib Sharma, it now needs editing/translation and publishing.)
- 3) To hold a high-level meeting in Nepal that will discuss various aspects of this neglected problem to attention of the medical community and policy makers in Nepal (and through the media to the public at large).

* Nepal now has new media companies who can work with medical experts to put together a public awareness campaign. In areas where television is not available, the FM radio is ubiquitous and can be a powerful and inexpensive tool to spread awareness among the poorest people (where it is most needed). Medical doctors can be connected using social media and over the cell phone network (that is now available almost everywhere in the country).