

# ALL IN A DAY'S WORK

As if hiking 10 miles a day through forests and swamps on the lookout for poachers wasn't enough, members of Indonesia's specially trained Rhino Protection Units (RPUs) also collect incredibly important data regarding endangered rhinos and other threatened wildlife.

**Bill Konstant** | Programme Officer, International Rhino Foundation

**S**ince they rarely view rhinos directly when on patrol, they rely heavily on indirect evidence such as footprints, dung, urine, wallows, scrapes, and signs of feeding as indicators of population size, density and composition.

Twelve 4-man RPUs patrol Bukit Barisan Selatan and Way Kambas National Parks in southern Sumatra, protecting an estimated 50–60 Sumatran rhinos, while four units are responsible for monitoring the world's last remaining population of Javan rhinos in Ujung Kulon National Park, located in western Java. In addition to rhino signs, the RPUs also compile data regarding the presence of endangered tigers, elephants and tapirs in Sumatra, and of banteng in Java. Signs of all these species, as well as evidence of illegal activities – snares, traps, fishing, logging, forest product collection – are catalogued and mapped on a daily basis. This is critical to enforcing existing wildlife laws and assisting in the prosecution of offences.

Measurements are taken each time rhino footprints are encountered. This can help determine the size, sex and age of the animal that left the spoor. Adult male Sumatran and Javan rhinos

tend to outweigh females, so the largest tracks probably belong to older males. The smallest tracks are those of calves, which are found alongside those of the mother for the first couple of years. The birth of Andatu – the first calf born at the Sumatran Rhino Sanctuary – provided an excellent opportunity to measure the rate at which foot size increases in young rhinos, and that will allow the RPUs to better estimate the age of juvenile wild rhinos.

In Ujung Kulon National Park, the RPUs can often tell if a wallow is being used by a bull (male) or cow (female) rhino. Only the bulls have horns, which they like to use to enlarge the size of the wallow. They excavate the surrounding mud banks by jabbing them with their horns and prying loose chunks of soil. Telltale conical holes along the wallow's edge confirm a recent bath taken by an adult male. Mud that clings to the other end of the rhino's body after taking its 'spa' is characteristically scraped off by plant stems and trunks as the animal ambles away, providing evidence both of direction headed (determined by the side on which it is deposited) and the time since its departure from the wallow (evident from the mud's moisture content). Bubbles on the water's surface are also a clue that the rhino just left.

The greatest potential for creating profiles of the elusive Sumatran and Javan rhinos lies in a combination of camera-trap studies and genetic analyses of dung samples. The RPUs

are actively engaged in both efforts, working with field biologists to strategically place camera traps throughout the forest, and collecting dung samples for genetic analysis in the laboratory. The latter programme has required special training in collection techniques and is still in its early stages. From the field, faecal samples are sent to the Eijkman Institute in Jakarta, Indonesia for analysis. The objectives are to determine sex ratios within the population, as well as the degree of relatedness. Given the small population sizes of both rhino species, as well as the fragmented nature of the remaining Sumatran rhino populations, their future will depend upon intensive management and knowledge of individual animals.

## Grants

We are very grateful to Chester Zoo, which awarded £8,000 towards the ongoing costs of the RPU programme in Sumatra.



YAYASAN BADAK INDONESIA



YABI

From top: Rangers are trained in faecal sample collection techniques. Rhino dung is very useful for genetic analysis!

An RPU member discovers a snare set for large mammals in Way Kambas NP



MARK CARWARDINE