

son to see the many snakes that call the Japanese countryside home. As the temperature cools into late afternoon, you can watch them cross the narrow farm roads between the fresh-cut paddies and the woodlots. The small-to medium-size snake with the striking red, black and yellow pattern is the *yamakagashi*, or Japanese keelback; the large, heavy snake with indistinct black stripes can only be the *aodaisho* rat snake; the smaller black-striped snake with red eyes is the *shima-hebi* garter snake; and the short, thickset, slow-moving blotched snake, the one that somehow manages to command your immediate attention, is the feared *mamushi* pit-viper.

Most of the common Japanese snakes belong to the family Colubridae, often called "typical" snakes. The *aodaisho* rat snake is Japan's largest, reaching lengths of close to 3 meters. This harmless snake is common around

Several other small Colubrids may be encountered in the Japanese countryside, but there is one snake that is never far from the minds of rice farmers and autumn mushroom hunters. This is the ma-

viper fangs are tubular, with a hole at the tip, and function like a precision hypodermic syringe. Poison moves directly from the secreting glands through the hollow fangs and deep into the victim's body.

The *mamushi* belongs to the Crotalinae, or pit-vipers, a subfamily of the Viperidae that has evolved a special heat-sensitive organ. Between the *mamushi*'s eyes

often bit on the arm when

rather than a specialist in nocturnal mammal hunting.

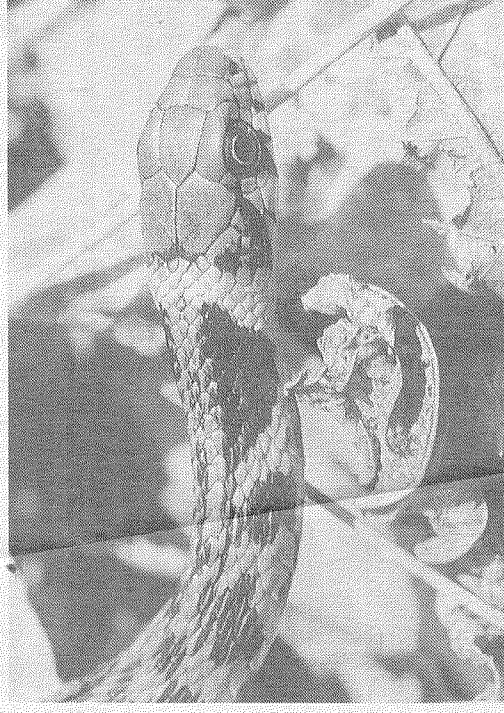
The *mamushi* takes full advantage of a great variety of available prey, feeding on frogs in and around the rice paddies, and small mammals in the surrounding forests. Although nonaggressive, the *mamushi* will attack humans in self-defense. Farmers are

often bit on the arm when

vested and placed in *shochu* liquor to make a medicinal drink, said to be good for curing colds and even restoring sexual vitality. Dried and powdered *mamushi* is sold at Chinese herbal medicine shops, and is popular when mixed with powder from the *suppon* (soft-shelled turtle).

Snakes are an important element in the countryside ecosystem, and fascinating creatures in their own right. Hasegawa describes the fine-tuned adaptive characteristics of snakes as a sort of "functional aesthetics: subtle variations, the shape of a nose-tip, the number of scales across the neck — within the limits of a restricted body plan."

Note: The snakes described here are the most common species found on Japan's main islands. When one crosses the Tokara Straits between the islands of Yakushima and Amami Oshima, one enters the domain of a completely different snake community. This southern group includes some members of the Elapidae (cobra) family, and also large and aggressive pit-vipers of the genus *Trimerurus* (*habu*).



A YOUNG *yamakagashi* keelback displays its striking warning markings. Special glands, located in the bright yellow band behind the head, produce a poison that can be ejected directly into the mouth of an attacker.

