There are many different species of poisonous frogs. Where does their poison come from, and how do they avoid poisoning themselves?

**POISONOUS FROGS**

There are several families of poisonous frogs. The most well known are poison dart frogs, which are native to Central and South America. There are over 170 species of poison frogs, which vary in their toxicity.

**DIFFERENT FROGS, DIFFERENT POISONS**

Batrachotoxin is one of the most potent alkaloid poisons known, found at high levels in the three frog species above. The highest levels are found in the golden poison frog; it’s estimated that the average frog of this species contains enough batrachotoxin to kill 20,000 mice.

Over 800 alkaloids have been identified in various species of poison frogs. Any one species commonly contains a mixture of many of these compounds. More examples are shown below.

**AVOIDING SELF-POISONING**

Frog poisons can work in a number of ways. Batrachotoxin is a neurotoxin which works by binding irreversibly to sodium ion channels in nerve and muscle cells. This interferes with nerve signals to the muscles, resulting in paralysis and death.

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