



Worldwide, the number of animals used in cocaine experiments exceeds 17,000. This figure includes four species of rodents, seven species of primates, as well as cats, dogs, rabbits and other animals (Table III).

TABLE III

**The Species and Number of Animals
Used in Cocaine Studies**

RODENTS

Rats.....	8,823+	
Mice.....	6,946+	
Hamsters & Guinea Pigs....	82+	
	15,851+	(91%)

PRIMATES

Rhesus Monkeys.....	331+	
Squirrel Monkeys.....	176+	
Chimpanzees, Baboons, Pigtailed Monkeys, Patas Monkeys & Cynomolgus Monkeys.....	52+	
	559+	(3%)

OTHER

Dogs.....	263+	
Cats.....	258+	
Rabbits.....	494+	
Pigeons.....	44+	
Chickens.....	24	
Electric Eel.....	?	
	1,083+	(6%)

GRAND TOTAL: 17,493+

NOTE: An effort was made to avoid recounting the same animals used in more than one study.

LEGEND:

+ = Underestimate owing to incomplete information

? = Information unavailable



How were these animals treated? This depends primarily on the type of experiment performed. Cocaine experiments can be divided into two broad categories:

* Behavioral experiments, where animals are administered cocaine (and sometimes other chemicals) to observe their behavioral responses;

* Biological experiments, where animals are subjected to any of a variety of procedures to monitor their biological responses. Several studies that were both behavioral and biological are categorized depending on which aspect predominated in the study. Biological experiments, which accounted for 47% of cocaine studies on animals, were far more damaging than the behavioral ones.

Six studies were randomly selected to provide unbiased evidence of how the research animals were treated. These are summarized as follows:

1 After hamsters, rats and mice were killed, their livers were removed and homogenized to uncover a possible mechanism for the toxic effects of cocaine on rodent livers (Rosen *et al.* 1972).

2 Mice and rats were injected with cocaine and chlorpromazine and then decapitated. Their brains were then removed and dissected to understand the interaction between the two drugs (Fedete & Borsy 1971).

3 "Lightly anesthetized" rats were killed by having blood withdrawn from their hearts with a syringe. The aim of the study was to develop a method for estimating the amount of cocaine in body tissue (Nayak *et al.* 1976).

4 Mice were "decapitated and their brain cortices rapidly removed" to compare the binding of cocaine and the drug imipramine to brain membranes (Reith *et al.* 1974, p. 2191). Rats also were killed as part of this study, which was designed to con-