

Stomach Contents of a Whitetail Deer Fawn (*Odocoileus virginianus*)

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Stomach content analysis has been used extensively in wildlife research as an index of animal diets (Norris, 1942; Cowan, 1945; Wilkins, 1957; Anderson, et al., 1964). DeNio (1938) indicated that a detailed botanical analysis of deer and elk stomach contents is a methodical and mathematical system for identifying ingested forage. According to Rush (1932), examination of elk stomach contents is useful but, because of mastication and rumination, it is difficult to identify plant species. However, from gross analysis it is possible to ascertain the relative proportions of each forage type by determining the weight or volume by percent of forage represented (DeNio, 1938).

On the evening of 10 July 1965, a juvenile whitetail deer was struck and killed by a car in Boiling Springs State Park, Woodward County, Oklahoma. The 5-or 6-week old female fawn measured as follows: total length 90 cm, tail 19 cm, left hind foot 29 cm, ear 19 cm, and weighed 8,172 g.

To analyze ingested materials the stomach was excised and fixed in 10% formalin. After fixation the ingested material in the rumen and reticulum was removed and placed in one container and the contents of the omasum and abomasum in another. The stomach contents were washed, screened, separated and identified in part with the aid of a binocular dissecting microscope. Percent by volume is more commonly used in stomach analysis than percent by weight (Cottam, 1936; Hosley and Ziebarth, 1935; McAtee, 1921). Since the stomach was small the contents were measured volumetrically with a graduated cylinder and gravimetrically with a platform balance. The rumen and reticulum contained fragments of grasses, leaves, seeds and some unidentified particulate material while the omasum and abomasum contained milk curd and unidentified matter.

TABLE I. STOMACH CONTENTS EXPRESSED AS PERCENT OF TOTAL VOLUME (ml) AND PERCENT OF TOTAL WEIGHT (g).

| Contents | Volume | Weight |
|--------------|--------|--------|
| Grass | 25.0 | 4.2 |
| Leaves | 8.3 | 0.9 |
| Milk | 62.5 | 90.4 |
| Unidentified | 4.1 | 3.5 |
| Seed | trace | trace |
| Total | 100.0 | 100.0 |

A smooth sumac (*Rhus glabra*) seed and a leaf of black locust (*Robinia pseudoacacia*) were found in the rumen. Both of these plants are readily accessible to deer in the park.

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