

Present Distribution of Beaver in Indiana

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Introduction

In 1955, 20 years after beaver reintroduction efforts began, Brooks (2) attempted to delineate the distribution of beaver in Indiana. The principal beaver range was determined to be primarily associated with the Kankakee River drainage basin in northwestern Indiana (Figure 1). Since then, beaver range has expanded. The purpose of this report is to provide current data on the distribution of beaver in Indiana.

Methods

In August of 1981, questionnaires were sent to District Wildlife Biologists of the Indiana Department of Natural Resources (IDNR) requesting the locations of all known beaver colonies within their district and the general habitat associated with each colony. Biologists contacted IDNR Conservation Officers within their respective districts and then added other known sightings. In many instances, officers contacted local trappers to obtain more complete information. Beaver sightings, beaver dams and lodges, beaver damage complaints, and beaver cuttings were used to denote colony locations. Miles of streams per county were measured from a scaled map (4) using a Keuffel and Esser map measure instrument.

Results

A total of 1,218 beaver colonies was reported in 76 of 92 possible counties. No colonies were reported from a 15 county area in east central and southeastern Indiana (Figure 2). Over one-half of the reported colonies occurred in southern Indiana, with the largest concentration in the southwest (Table 1). Almost two-thirds of the colonies were located on rivers and streams, with the majority being associated with the Ohio, Wabash and Kankakee Rivers and their major tributaries. Water impoundments resulting from surface coal mining in southwestern Indiana were the second most commonly used habitat type, followed by ditches, ponds, and lakes. Less than one percent of the total colonies were associated with reservoirs. Over three-fourths of the colonies associated with lakes occurred in the natural lakes region of northern Indiana. Numbers of beaver per county were positively correlated with miles of streams per county ($r = 0.41$, $P > 0.05$).

Discussion

Beaver have substantially expanded their range in Indiana since 1955. Their distribution is primarily associated with the major river systems and their tributaries and encompasses all but 15 counties in east central and southeastern Indiana. Although isolated beaver colonies may exist in east central and southeastern Indiana, their presence is not known at this time.

Reasons for the absence of beaver in the east central and southeastern portions of the state are not known. Most of Indiana's major streams originate in east central Indiana. Water levels are variable and stream flow is rapid (3). The

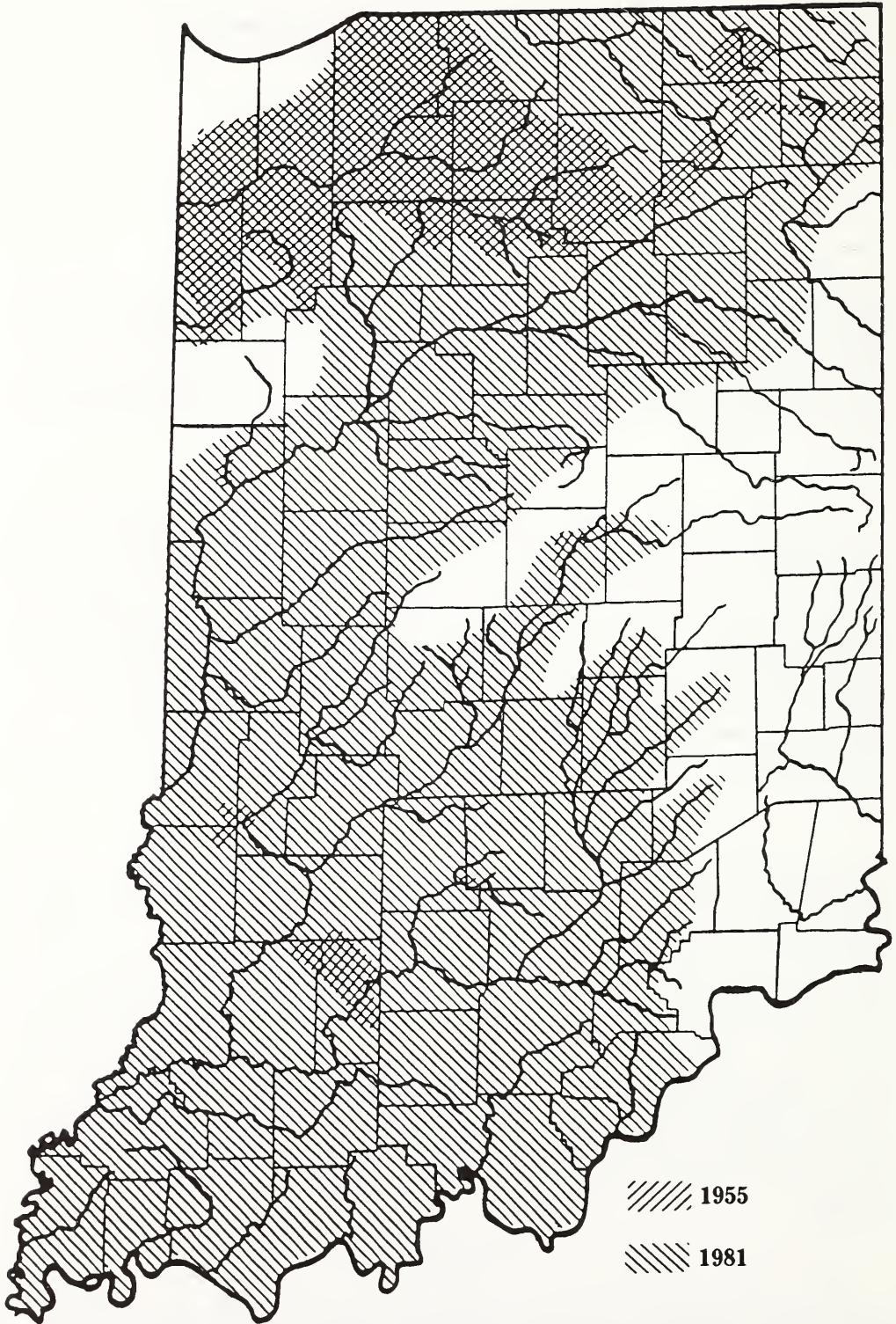


FIGURE 1. *Distribution of beaver in Indiana in 1955 and 1981.*

combination of these two variables may deter colonization. Flood control reservoirs on the Mississinewa and Salomonie Rivers, the major drainage systems for the east central region, may also impede upstream colonization. Colonization of these rivers is limited to those portions downstream from the water control

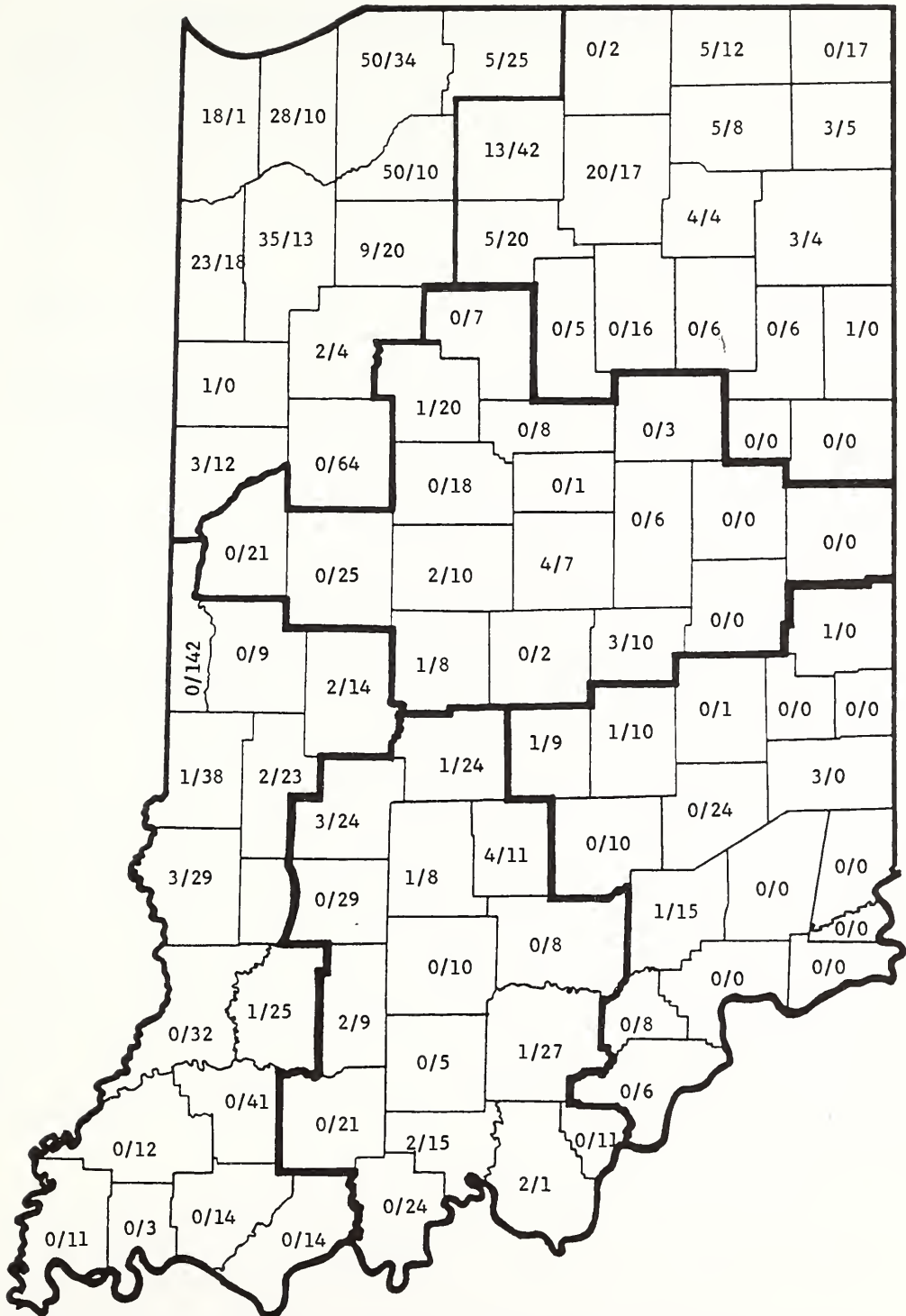


FIGURE 2. *Distribution of beaver colonies by counties in Indiana (1955/1981).*

structures. Transplanting beavers above the reservoirs might aid in range expansion.

In southeastern Indiana, terrain may be inhibiting colonization. This region is separated from the other drainage basins of southern Indiana by the Dearborn Uplands, a series of narrow winding ridges with steep slopes (1). The uplands

TABLE 1. *Number of beaver colonies reported by zone and habitat type.*

	<u>NW</u>	<u>NE</u>	<u>C</u>	<u>SW</u>	<u>SC</u>	<u>SE</u>	<u>TOTAL</u>	<u>PERCENT</u>
Streams	144	84	111	255	150	59	803	65.0
Strip Pits	0	0	0	110	5	0	115	9.4
Ditches	39	10	25	31	2	1	108	8.9
Ponds	15	20	6	25	34	0	100	8.2
Lakes	13	49	2	1	12	3	80	6.6
Reservoirs	0	1	2	0	9	0	12	1.0
TOTALS	211	164	146	422	212	63	1,218	— — —
PERCENT	17.3	13.5	12.0	34.6	17.4	5.2	— — —	100.0

create an isolated drainage basin that flows eastward into Ohio. Streams of this area characteristically have variable water levels and rapid streamflow (3).

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