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NATURAL HISTORY SURVEY OF ILLINOIS  
STATE LABORATORY OF NATURAL HISTORY  
S. A. FORBES, DIRECTOR



30

# Maps

## Showing Distribution of Illinois Fishes to Accompany a Report on the Fishes of Illinois

BY

STEPHEN ALFRED FORBES, PH.D., LL.D.

AND

ROBERT EARL RICHARDSON, A.M.

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1908

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## LIST OF MAPS

The general map of the distribution of collections (Map IV.) shows, by the location of the red spots, all the localities from which collections of fishes have been made by us in the work of the Natural History Survey. The distribution maps for the various species indicate in the same way all the localities from which representatives of the species have been taken. *For an accurate idea of the significance of these species maps, each should be compared with Map IV.*

The following numbered list of the counties of the state corresponds to the figures on these maps.

- |                 |                |                |
|-----------------|----------------|----------------|
| 1. Jo Daviess   | 35. Hancock    | 69. Madison    |
| 2. Stephenson   | 36. McDonough  | 70. Bond       |
| 3. Winnebago    | 37. Fulton     | 71. Fayette    |
| 4. Boone        | 38. Mason      | 72. Effingham  |
| 5. McHenry      | 39. Tazewell   | 73. Jasper     |
| 6. Lake         | 40. McLean     | 74. Crawford   |
| 7. Cook         | 41. Vermilion  | 75. Lawrence   |
| 8. Du Page      | 42. Champaign  | 76. Richland   |
| 9. Kane         | 43. Piatt      | 77. Clay       |
| 10. DeKalb      | 44. Dewitt     | 78. Marion     |
| 11. Ogle        | 45. Logan      | 79. Clinton    |
| 12. Lee         | 46. Menard     | 80. St. Clair  |
| 13. Carroll     | 47. Cass       | 81. Monroe     |
| 14. Whiteside   | 48. Schuyler   | 82. Randolph   |
| 15. Rock Island | 49. Brown      | 83. Washington |
| 16. Mercer      | 50. Adams      | 84. Perry      |
| 17. Henry       | 51. Pike       | 85. Jefferson  |
| 18. Bureau      | 52. Scott      | 86. Wayne      |
| 19. Putnam      | 53. Morgan     | 87. Edwards    |
| 20. La Salle    | 54. Sangamon   | 88. Wabash     |
| 21. Kendall     | 55. Christian  | 89. White      |
| 22. Grundy      | 56. Macon      | 90. Hamilton   |
| 23. Will        | 57. Moultrie   | 91. Franklin   |
| 24. Kankakee    | 58. Douglas    | 92. Jackson    |
| 25. Iroquois    | 59. Edgar      | 93. Williamson |
| 26. Ford        | 60. Clark      | 94. Saline     |
| 27. Livingston  | 61. Coles      | 95. Gallatin   |
| 28. Marshall    | 62. Cumberland | 96. Hardin     |
| 29. Woodford    | 63. Shelby     | 97. Pope       |
| 30. Stark       | 64. Montgomery | 98. Johnson    |
| 31. Peoria      | 65. Macoupin   | 99. Union      |
| 32. Knox        | 66. Greene     | 100. Alexander |
| 33. Warren      | 67. Calhoun    | 101. Pulaski   |
| 34. Henderson   | 68. Jersey     | 102. Massac    |

I. & II. The three sections of Illinois, northern, central, and southern, and the ten stream systems of the state: I., the Galena District, II., the Rock River System, III., the Illinois River System, IV., the Lake Michigan drainage, V., the Mississippi River drainage, VI., the Kaskaskia River System, VII., the Wabash System, VIII., the Big Muddy River System, IX., the Saline River System, and X., the Cairo District.

III. Glacial geology of Illinois.

IV. Localities from which collections were made.

V.—CII. Distribution of species.

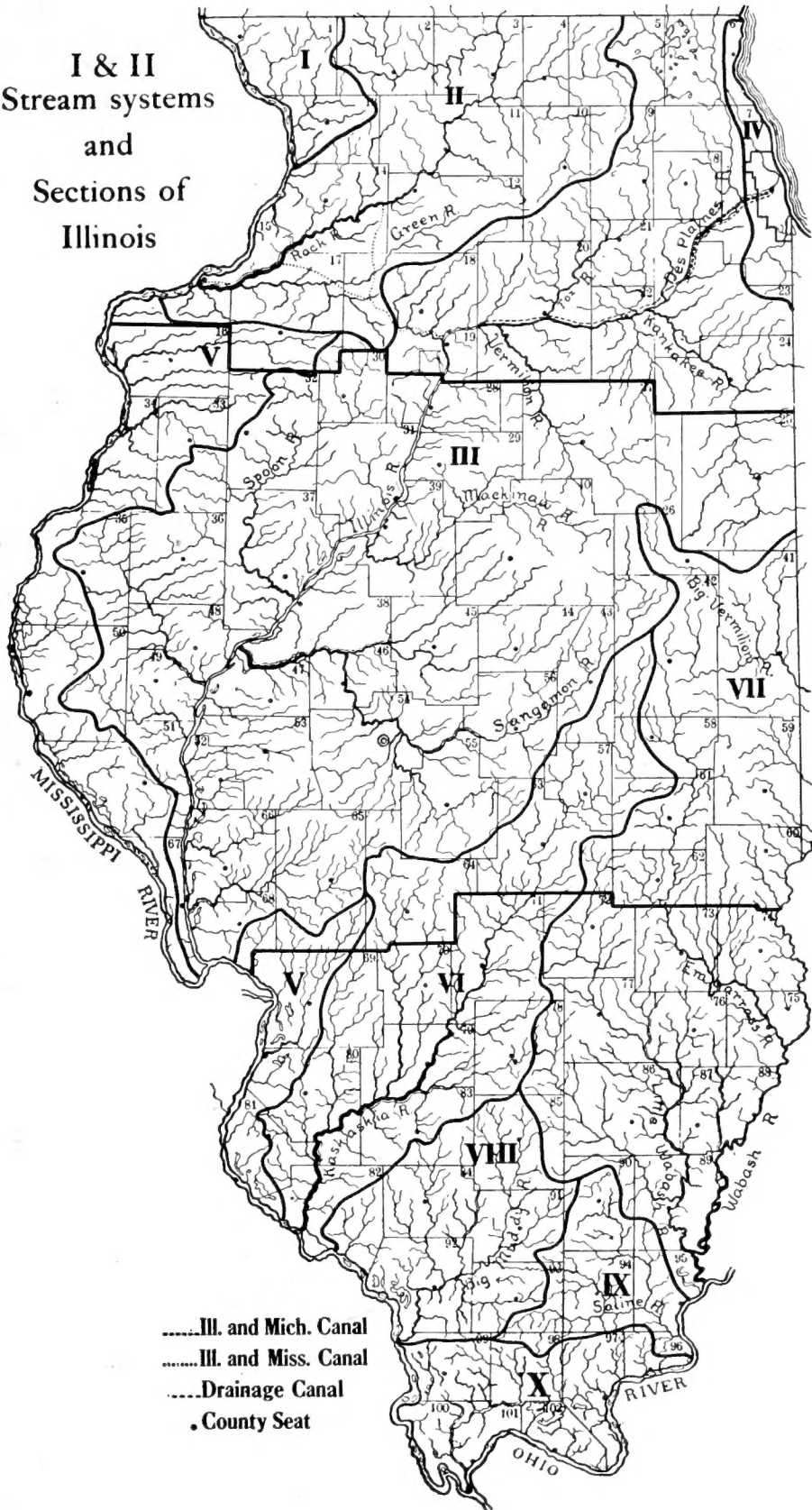
CIII. Northern species (●) and southern species (▲) in Illinois.

MA 62698

- V. *Lepisosteus osseus*  
VI. *L. platostomus*  
VII. *Amia calva*  
VIII. *Dorosoma cepedianum*  
IX. *Ictiobus cyprinella*  
X. *I. urus*  
XI. *I. bubalus*  
XII. *Carpionodes carpio*  
XIII. *C. difformis*  
XIV. *C. velifer*  
XV. *C. thompsoni*  
XVI. *Erimyzon sucetta oblongus*  
XVII. *Minytrema melanops*  
XVIII. *Catostomus commersonii*  
XIX. *C. nigricans*  
XX. *Moxostoma anisurum*  
XXI. *M. aureolum*  
XXII. *M. breviceps*  
XXIII. *Campostoma anomalum*  
XXIV. *Chrosomus erythrogaster*  
XXV. *Hybognathus nuchalis*  
XXVI. *H. nubila*  
XXVII. *Pimephales promelas*  
XXVIII. *P. notatus*  
XXIX. *Semotilus atromaculatus*  
XXX. *Opsopœodus emiliæ*  
XXXI. *Abramis crysoleucas*  
XXXII. *Cliola vigilax*  
XXXIII. *Notropis cayuga*  
XXXIV. *N. heterodon*  
XXXV. *N. blennius*  
XXXVI. *N. gilberti*  
XXXVII. *N. illecebrosus*  
XXXVIII. *N. hudsonius*  
XXXIX. *N. lutrensis*  
XL. *N. whipplii*  
XLI. *N. cornutus*  
XLII. *N. jejunos*  
XLIII. *N. atherinoides*  
XLIV. *N. rubrifrons*  
XLV. *N. umbratilis atripes*  
XLVI. *Ericymba buccata*  
XLVII. *Phenacobius mirabilis*  
XLVIII. *Hybopsis dissimilis*  
XLIX. *H. amblops*  
L. *H. storerianus*  
LI. *H. kentuckiensis*  
LII. *Ictalurus punctatus*  
LIII. *Ameiurus natalis*  
LIV. *A. nebulosus*  
LV. *A. melas*  
LVI. *Leptops olivaris*  
LVII. *Noturus flavus*  
LVIII. *Schilbeodes gyrimus*  
LIX. *S. miurus*  
LX. *Umbra limi*  
LXI. *Esox vermiculatus*  
LXII. *E. lucius*  
LXIII. *Fundulus diaphanus menona*  
LXIV. *F. dispar*  
LXV. *F. notatus*  
LXVI. *Gambusia affinis*  
LXVII. *Percopsis guttatus*  
LXVIII. *Labidesthes sicculus*  
LXIX. *Aphredoderus sayanus*  
LXX. *Pomoxis annularis*  
LXXI. *P. sparoides*  
LXXII. *Centrarchus macropterus*  
LXXIII. *Ambloplites rupestris*  
LXXIV. *Chænobryttus gulosus*  
LXXV. *Lepomis miniatus*  
LXXVI. *L. megalotis*  
LXXVII. *L. humilis*  
LXXVIII. *L. pallidus*  
LXXIX. *Eupomotis gibbosus*  
LXXX. *Micropterus dolomieu*  
LXXXI. *M. salmoides*  
LXXXII. *Stizostedion vitreum*  
LXXXIII. *S. canadense griseum*  
LXXXIV. *Perca flavescens*  
LXXXV. *Percina caprodes*  
LXXXVI. *Hadropterus phoxocephalus*  
LXXXVII. *H. aspro*  
LXXXVIII. *Cottogaster shumardi*  
LXXXIX. *Diplesion blennioides*  
XC. *Boleosoma nigrum*  
XCI. *B. camurum*  
XCII. *Ammocrypta pellucida*  
XCIII. *Etheostoma zonale*  
XCIV. *E. jessie*  
XCV. *E. cœruleum*  
XCVI. *E. squamiceps*  
XCVII. *E. flabellare*  
XCVIII. *Boleichthys fusiformis*  
XCIX. *Microperca punctulata*  
C. *Roccus chrysops*  
CI. *Morone interrupta*  
CII. *Aplodinotus grunniens*

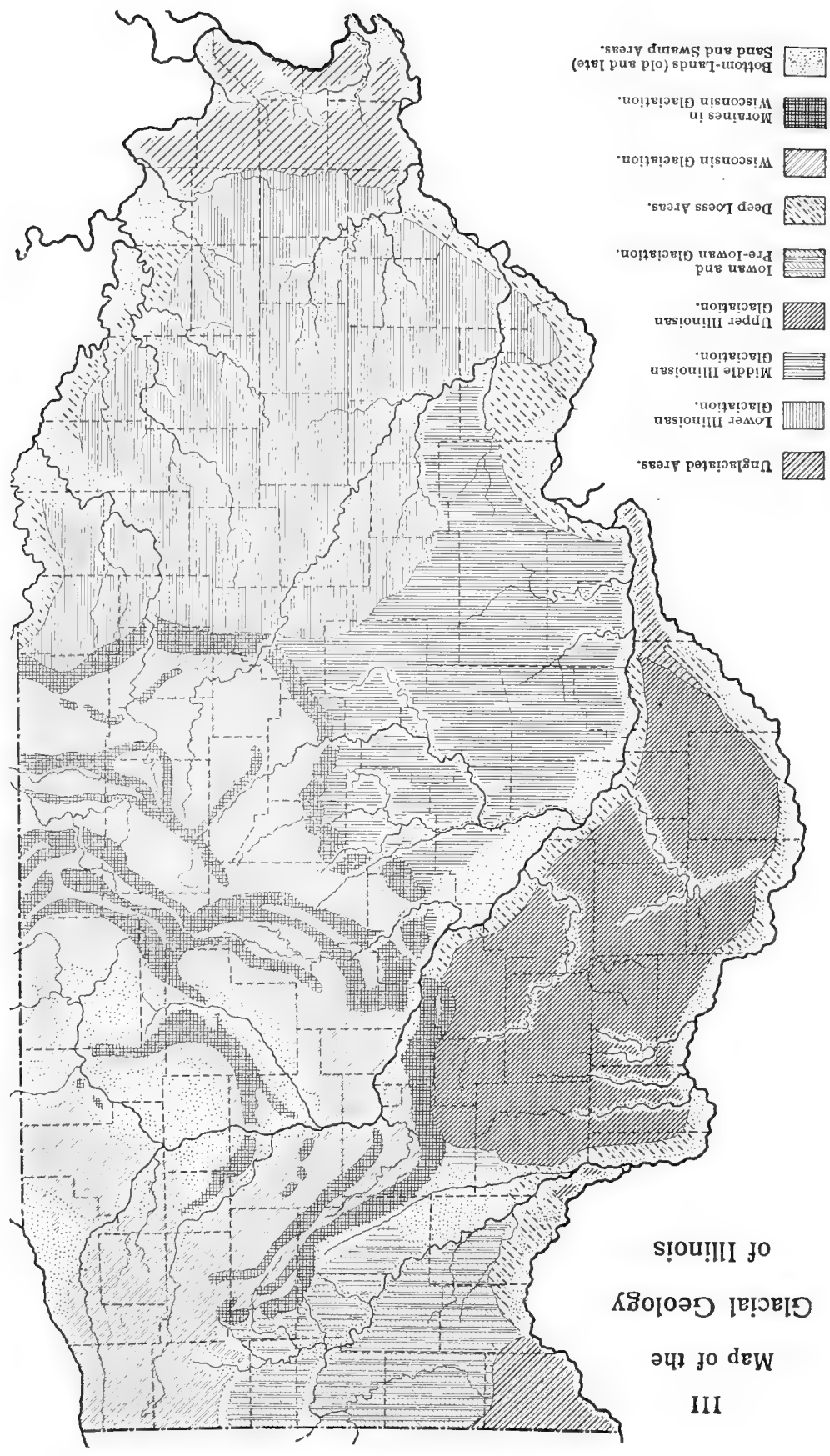


**I & II  
Stream systems  
and  
Sections of  
Illinois**



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III  
 Map of the  
 Glacial Geology  
 of Illinois



- Unglacted Areas.
- Lower Illinoian Glaciation.
- Middle Illinoian Glaciation.
- Upper Illinoian Glaciation.
- Pre-Lowan Glaciation.
- Deep Loess Areas.
- Wisconsin Glaciation.
- Moraines in Wisconsin Glaciation.
- Bottom-Lands (old and late) Sand and Swamp Areas.

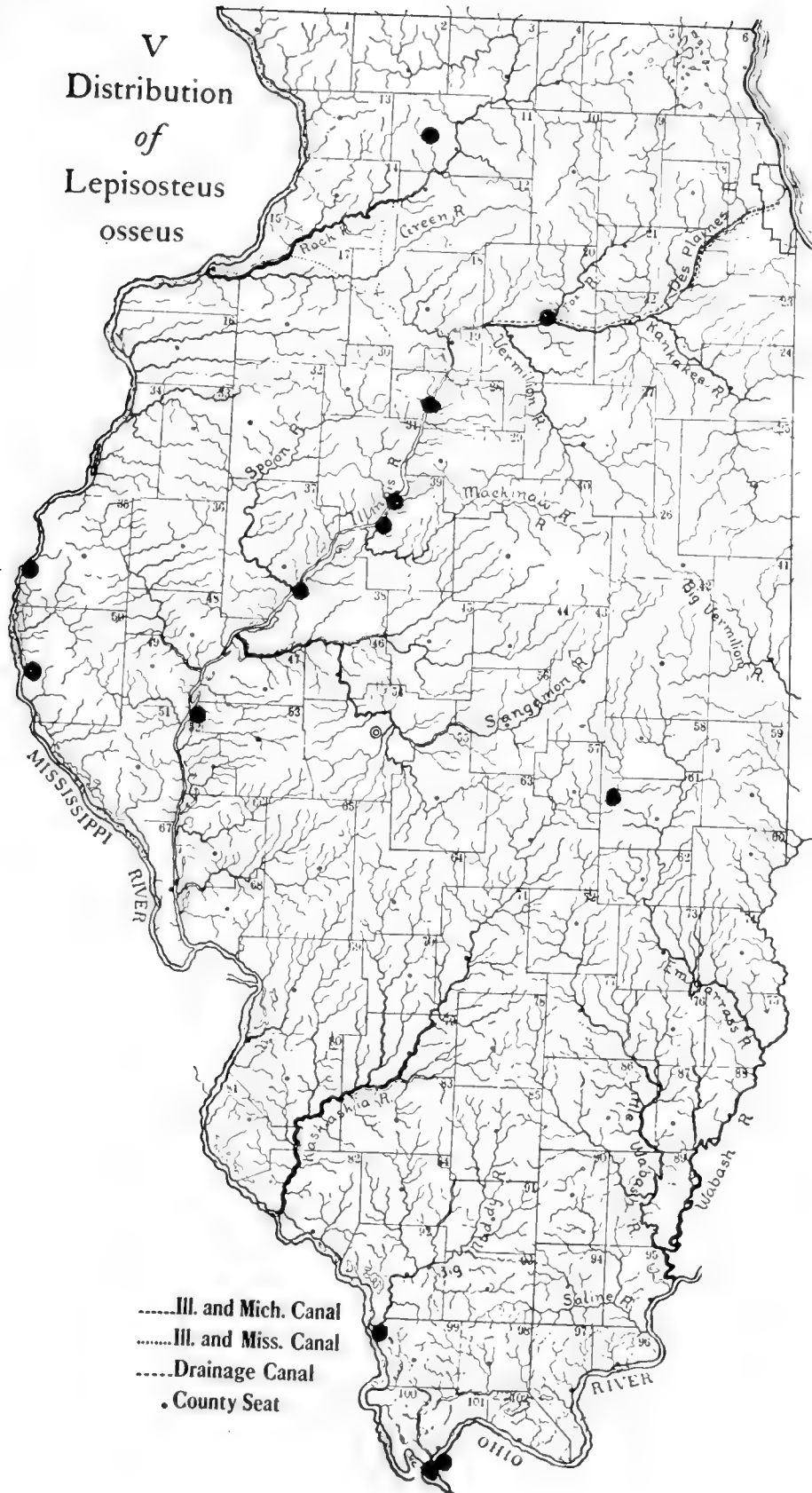
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IV  
 Water Courses  
 and  
 Distribution  
 of  
 Collections



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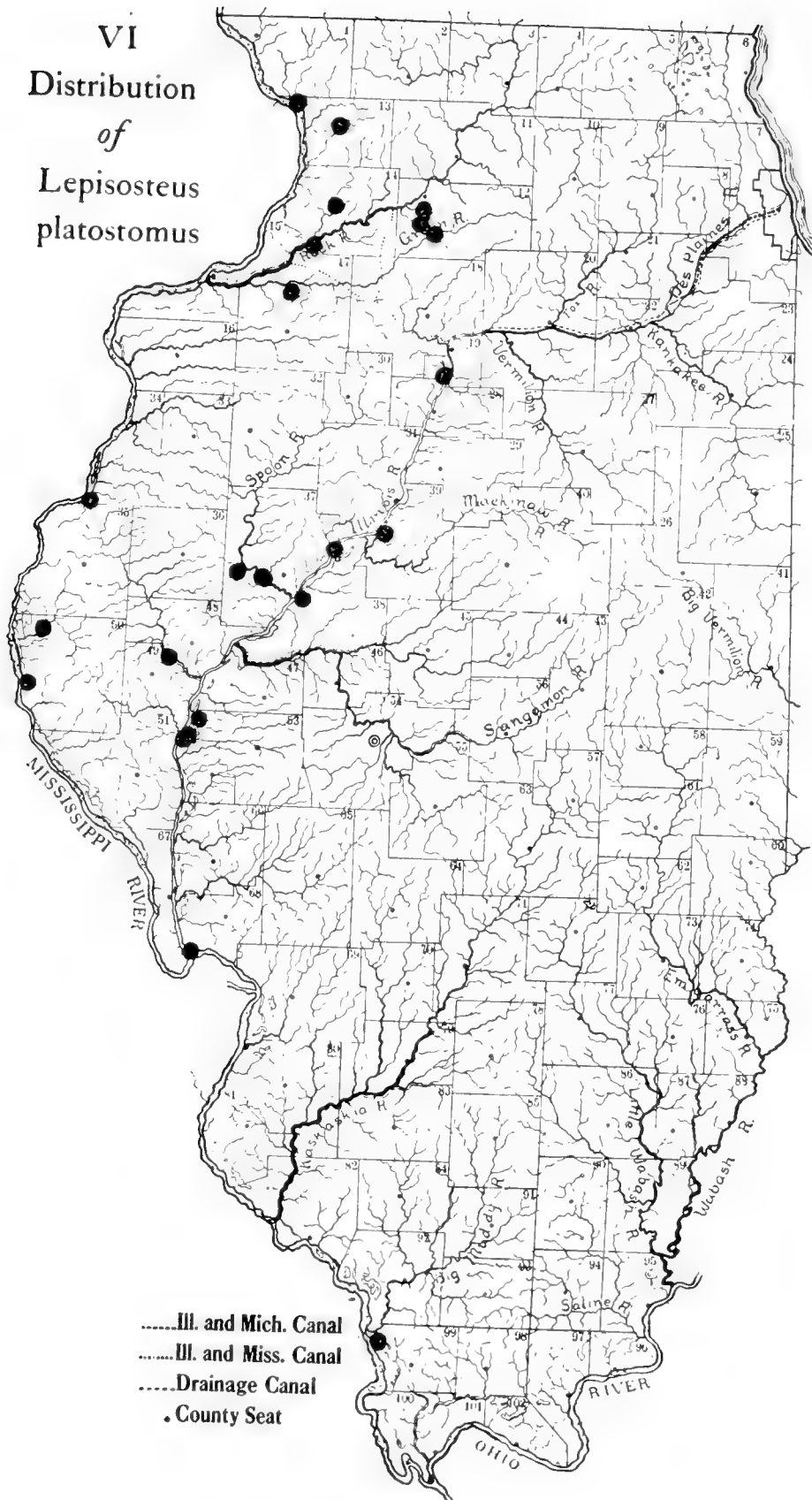
V  
 Distribution  
 of  
*Lepisosteus*  
*osseus*



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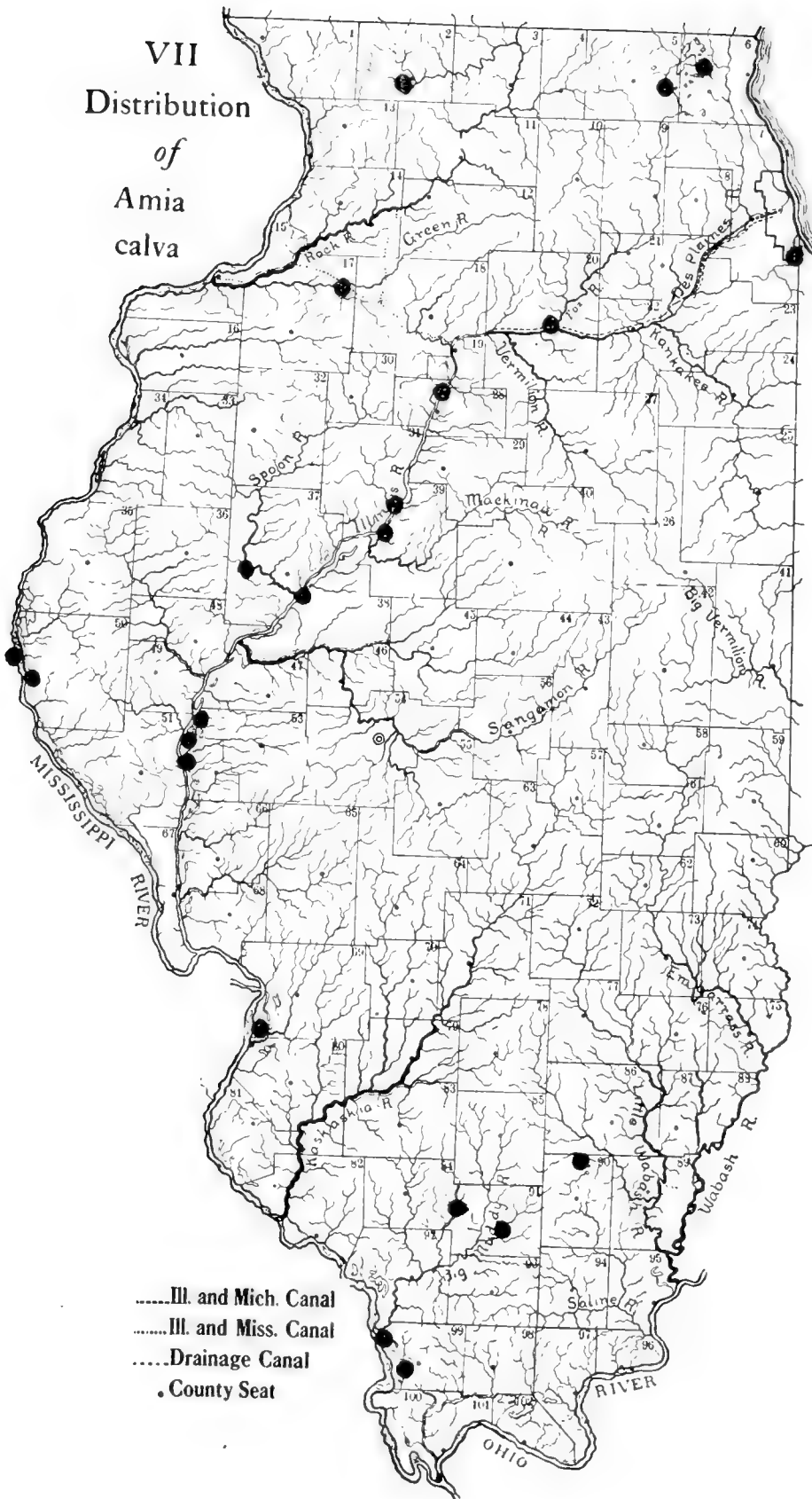


VI  
 Distribution  
 of  
*Lepisosteus  
 platostomus*



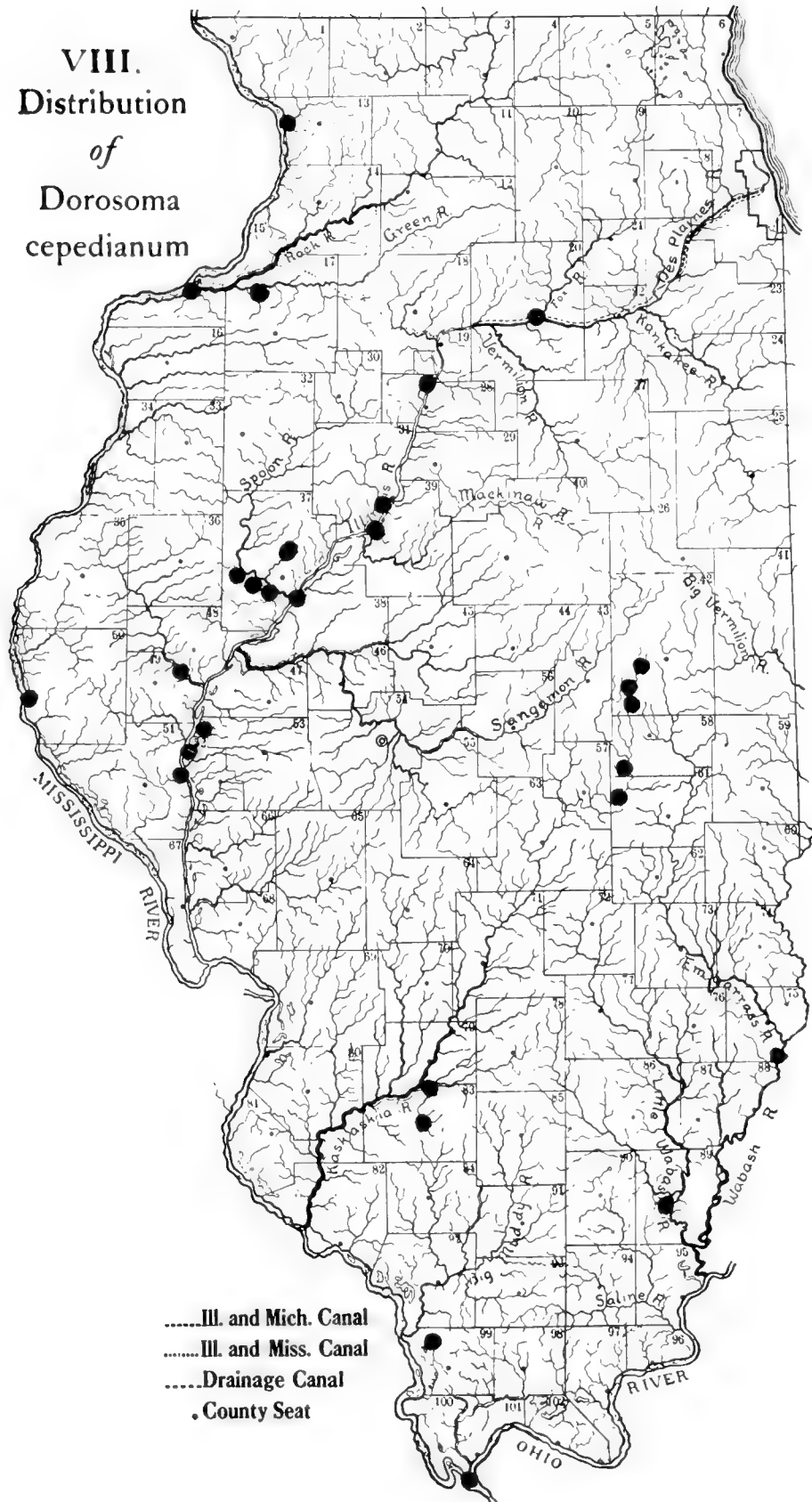
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VII  
 Distribution  
 of  
*Amia*  
*calva*



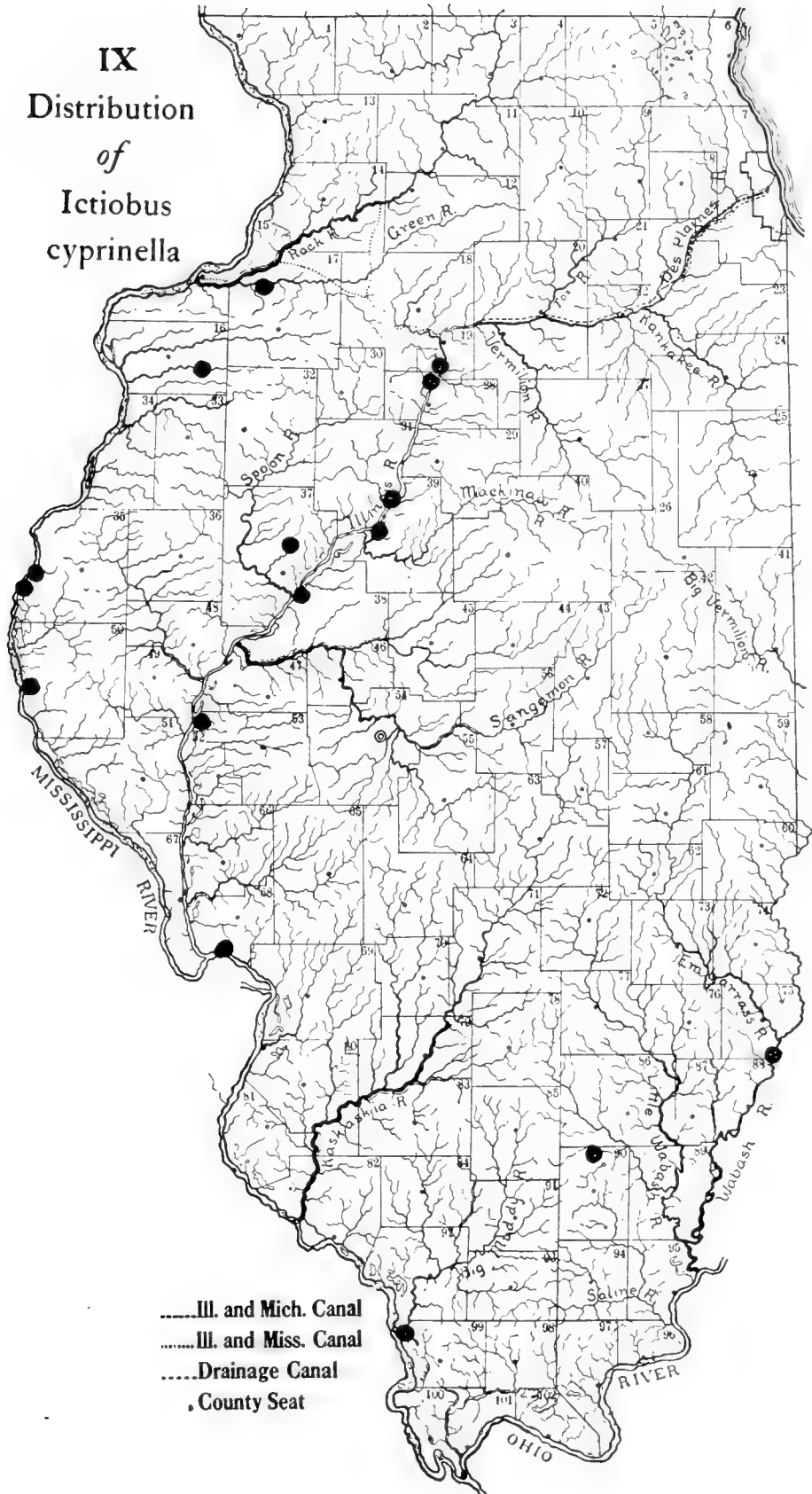
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VIII.  
Distribution  
of  
*Dorosoma*  
*cepedianum*



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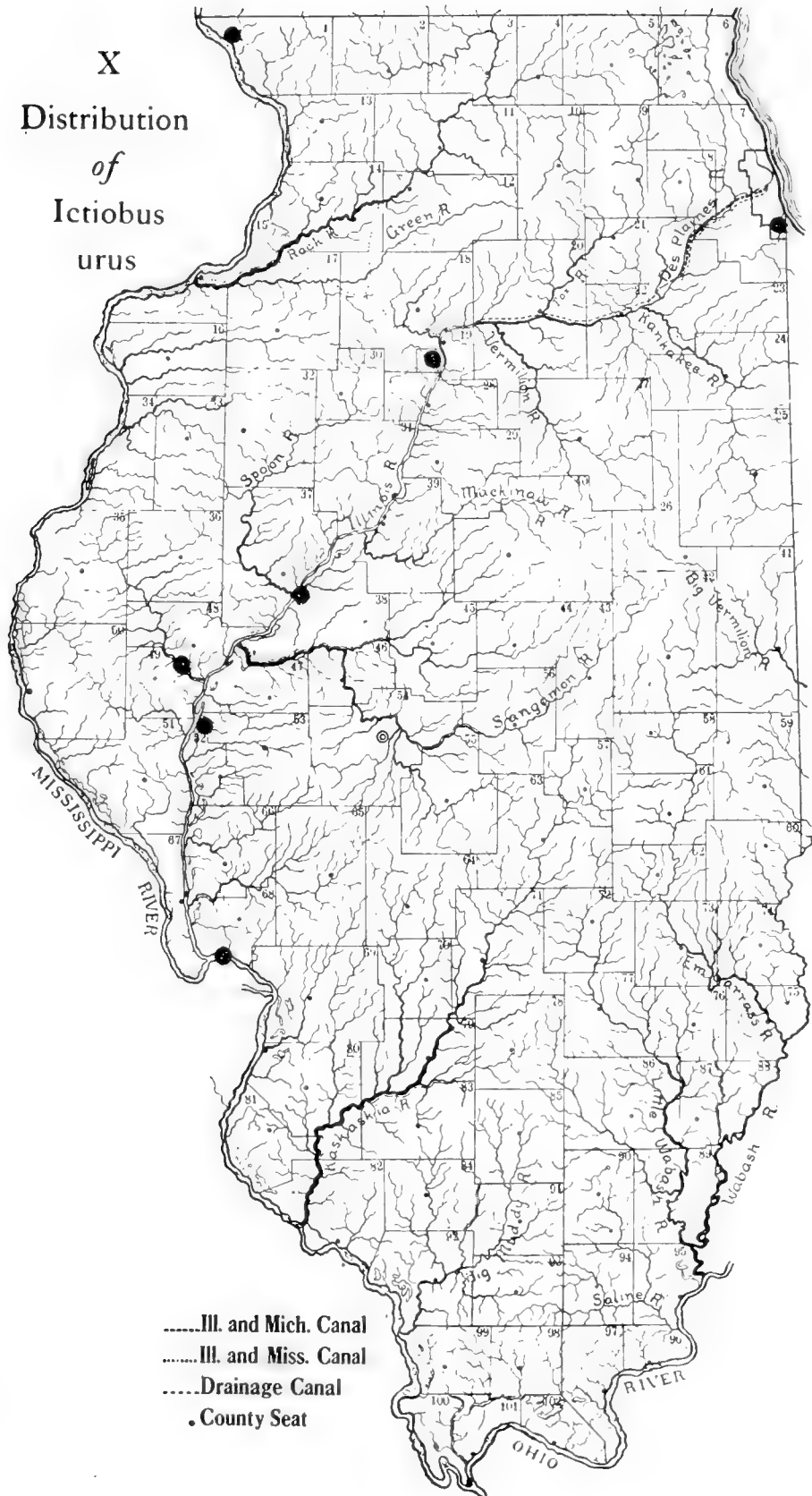
**IX**  
**Distribution**  
*of*  
**Ictiobus**  
**cyprinella**



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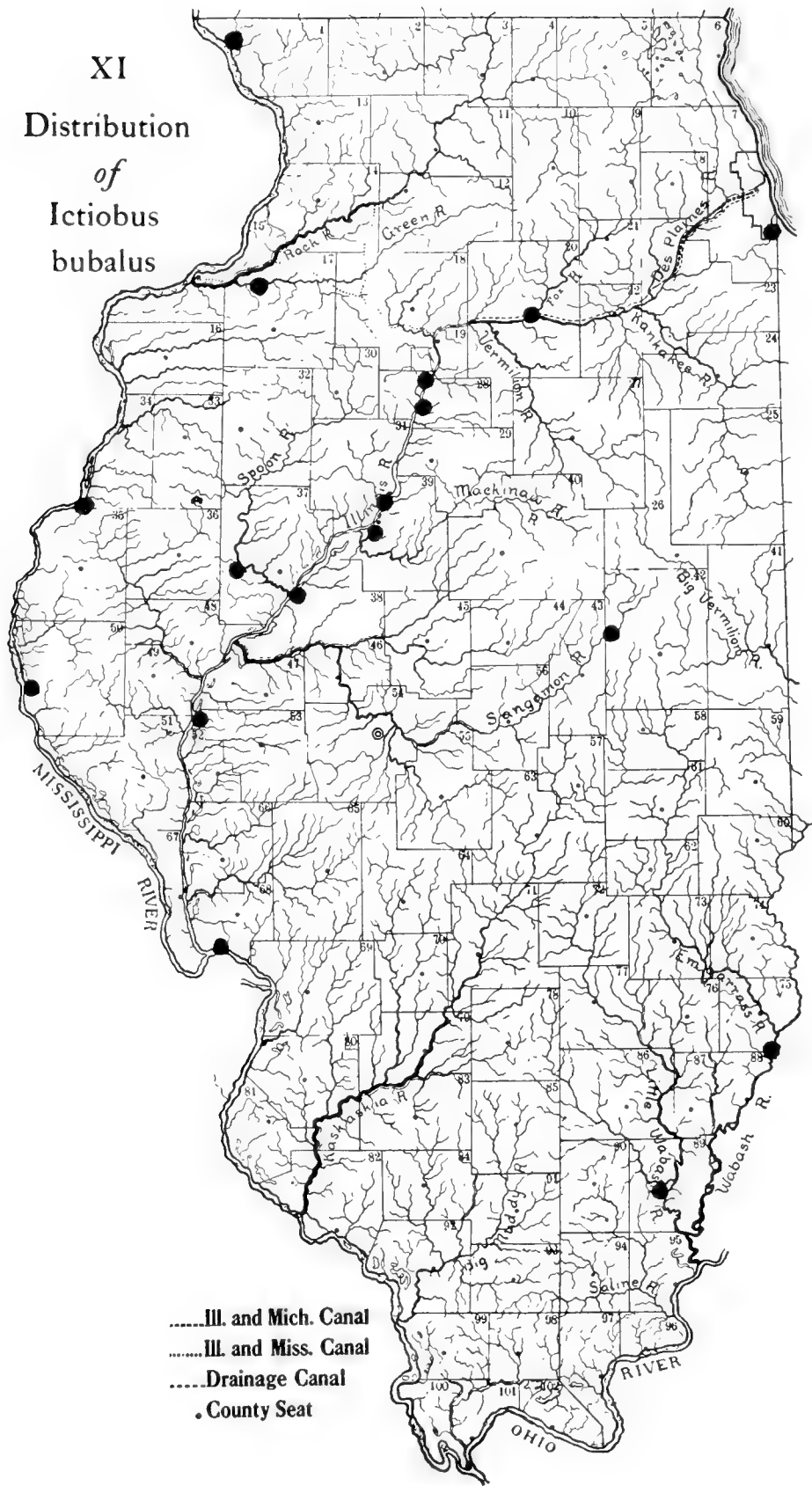


X  
 Distribution  
 of  
*Ictiobus*  
*urus*



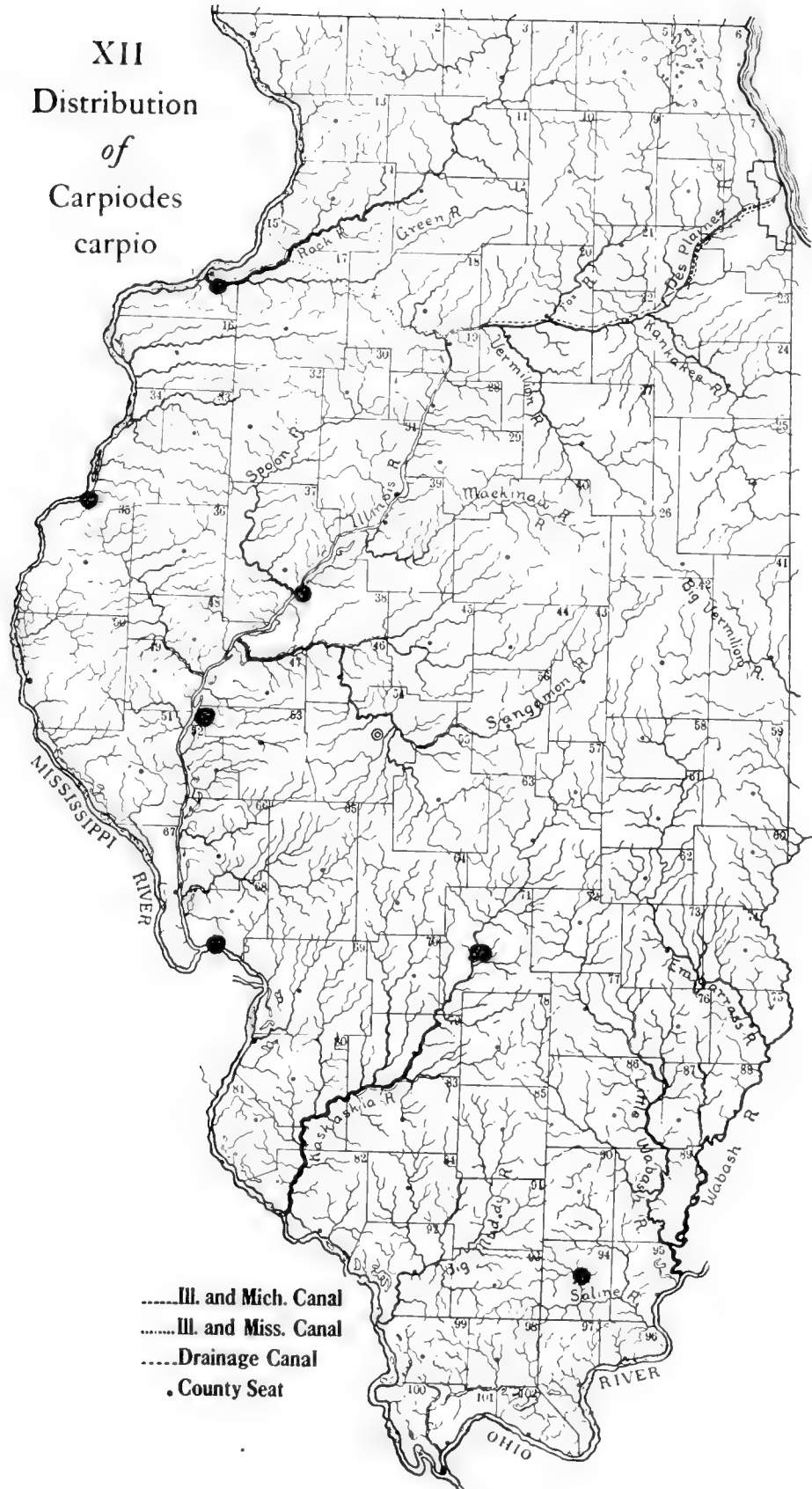
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XI  
 Distribution  
 of  
*Ictiobus*  
*bubalus*



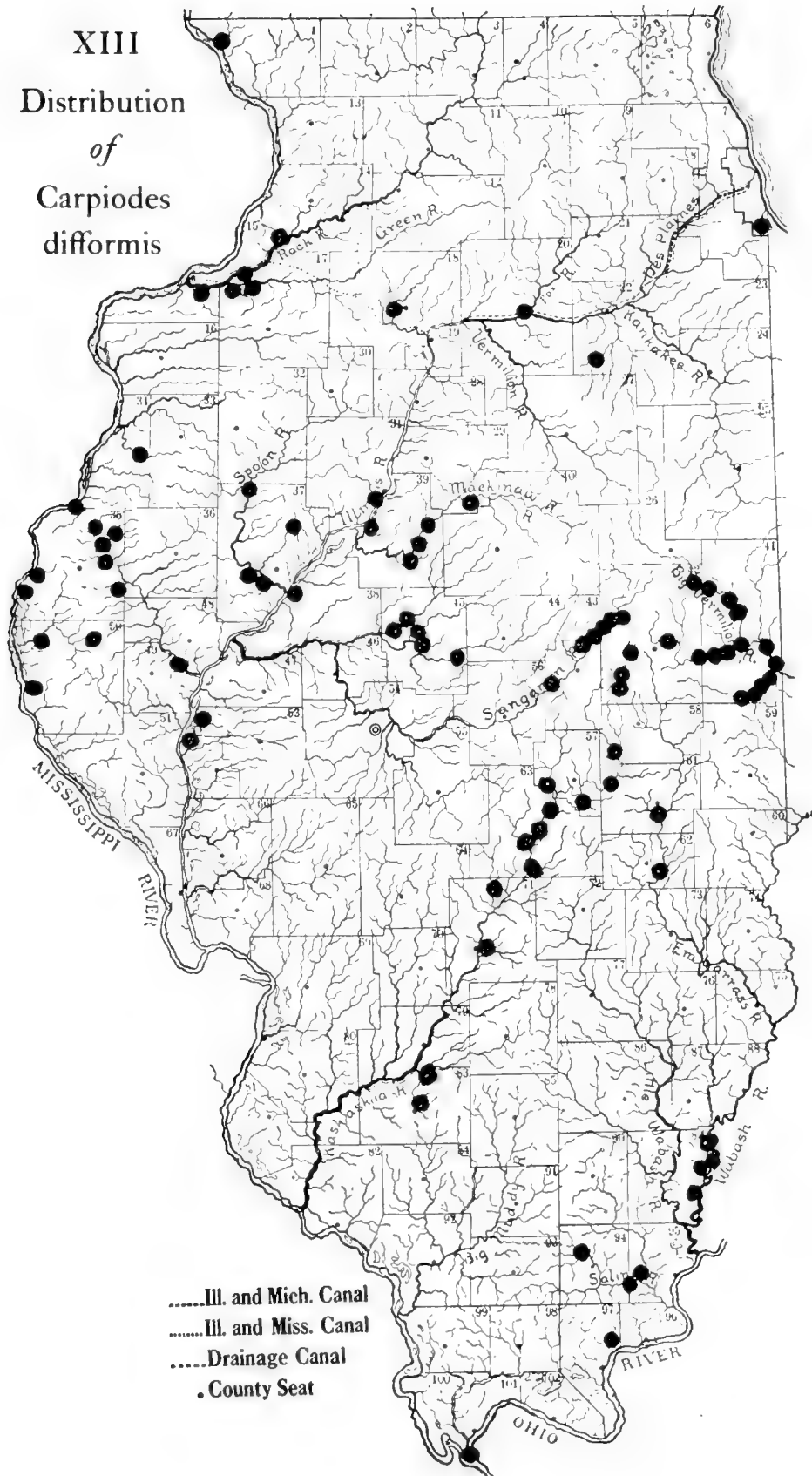
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XII  
 Distribution  
 of  
*Carpiodes*  
*carpio*



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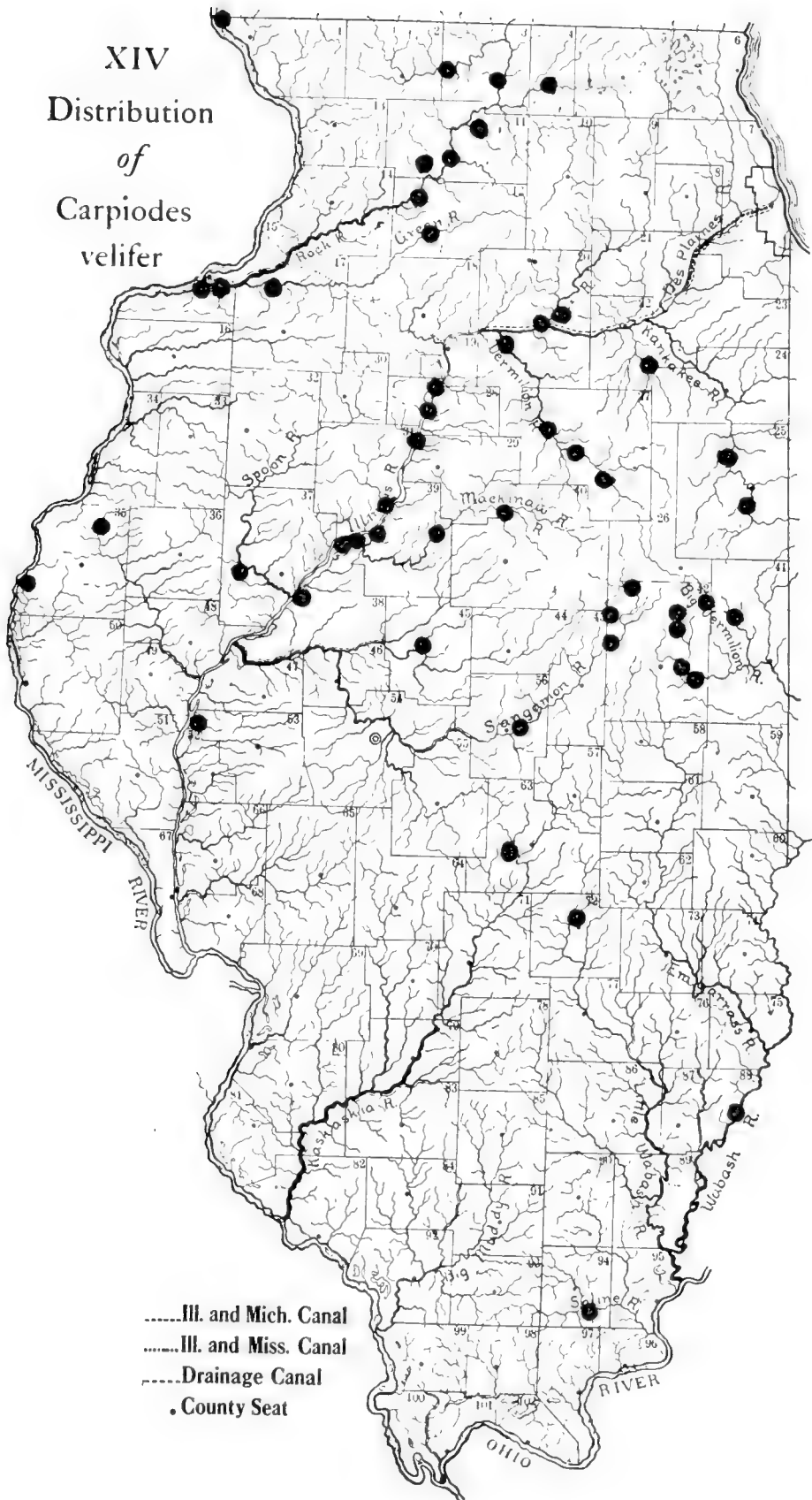
XIII  
 Distribution  
 of  
*Carpodes*  
*difformis*



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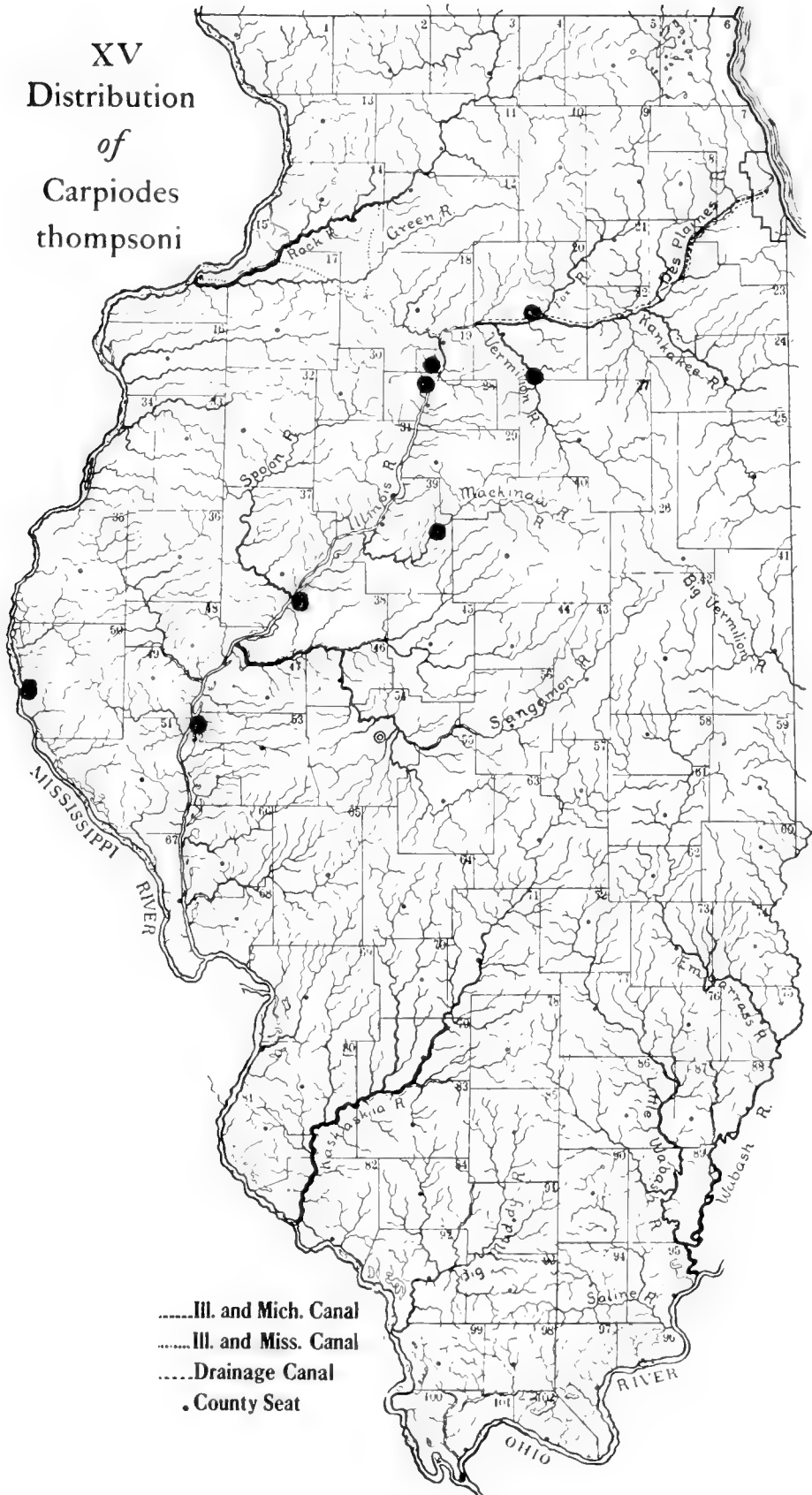


XIV  
 Distribution  
 of  
*Carpododes  
 velifer*



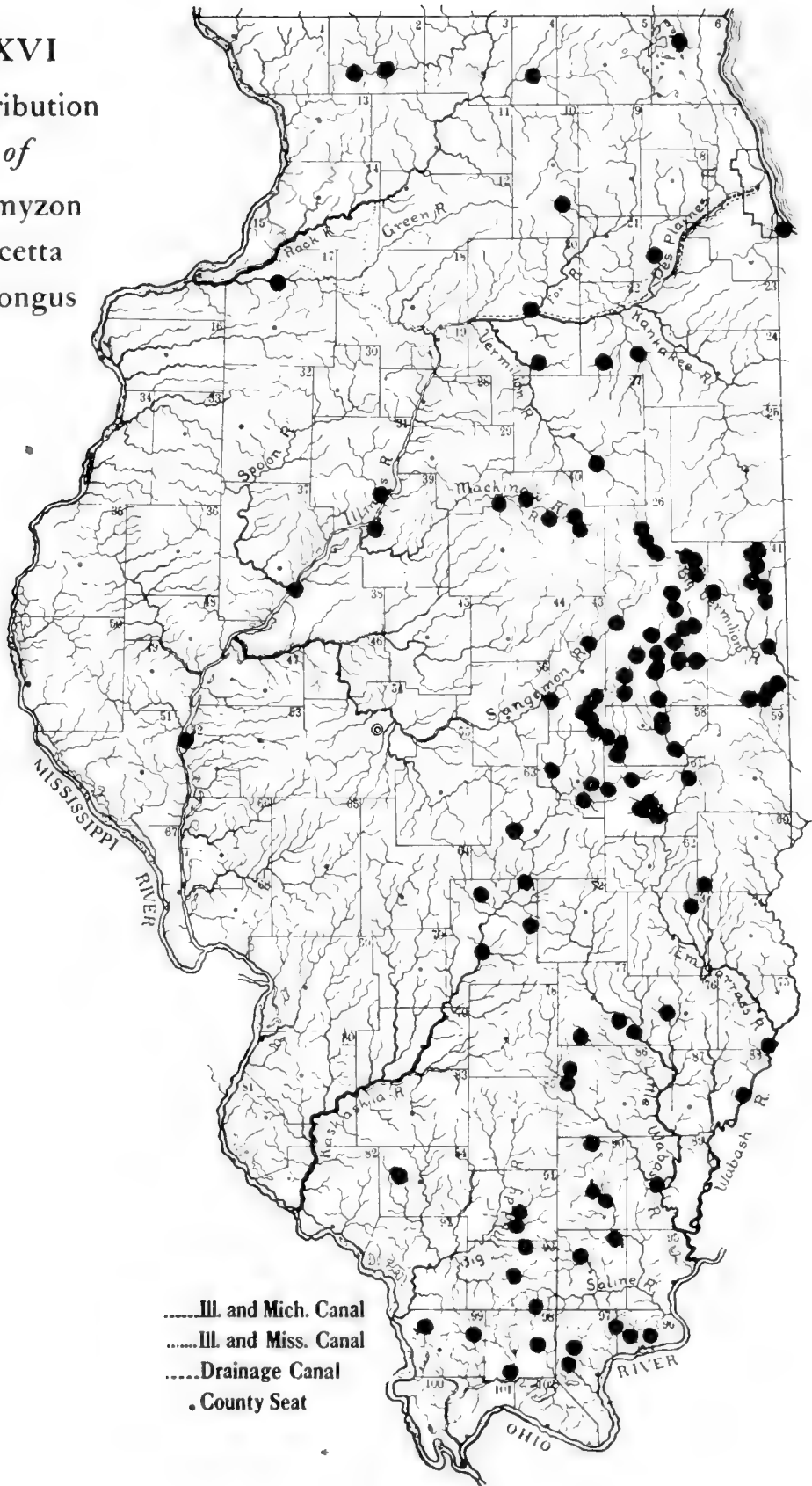
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XV  
 Distribution  
 of  
*Carpodes  
 thompsoni*



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XVI  
 Distribution  
 of  
*Erimyzon*  
*sucetta*  
*oblongus*



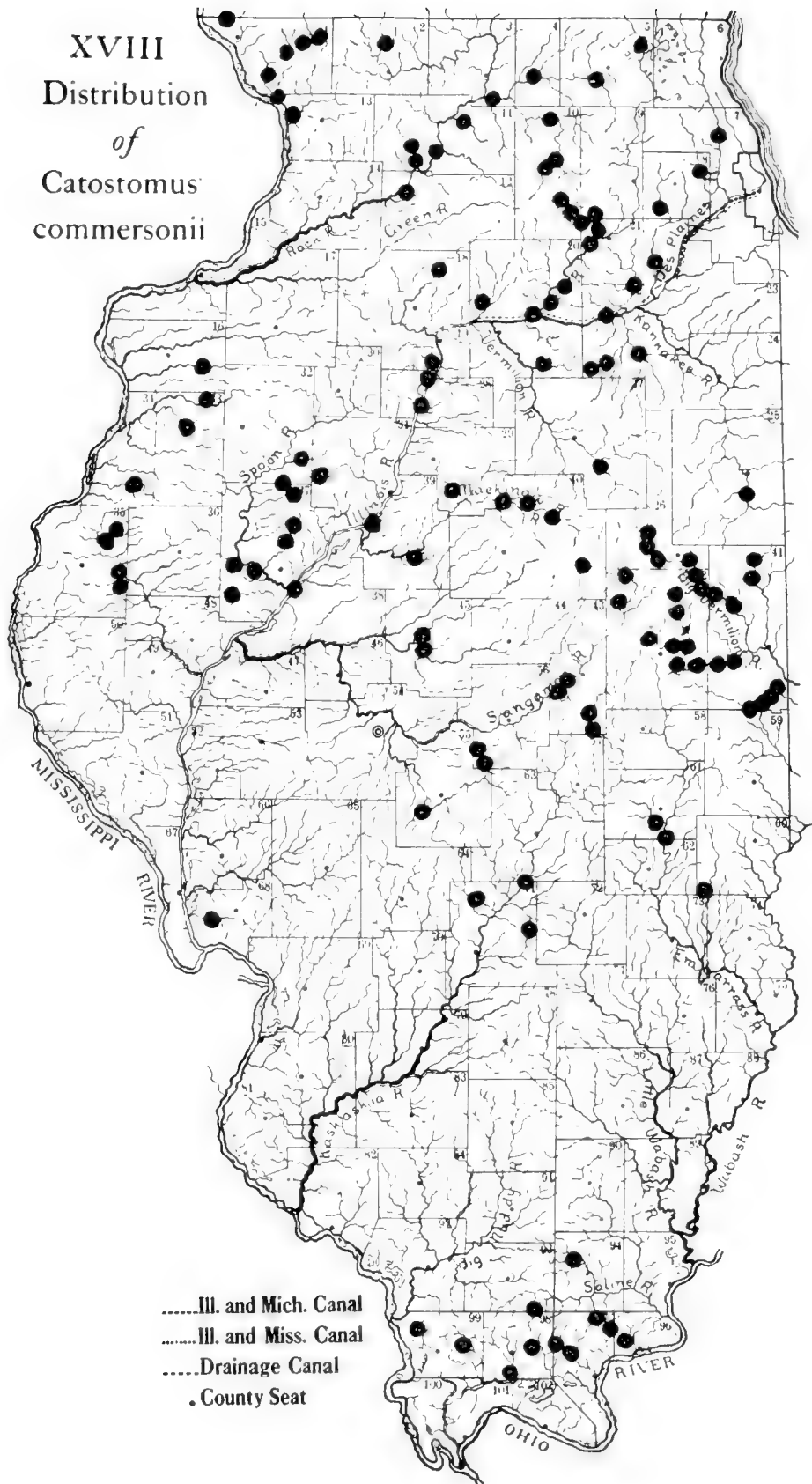
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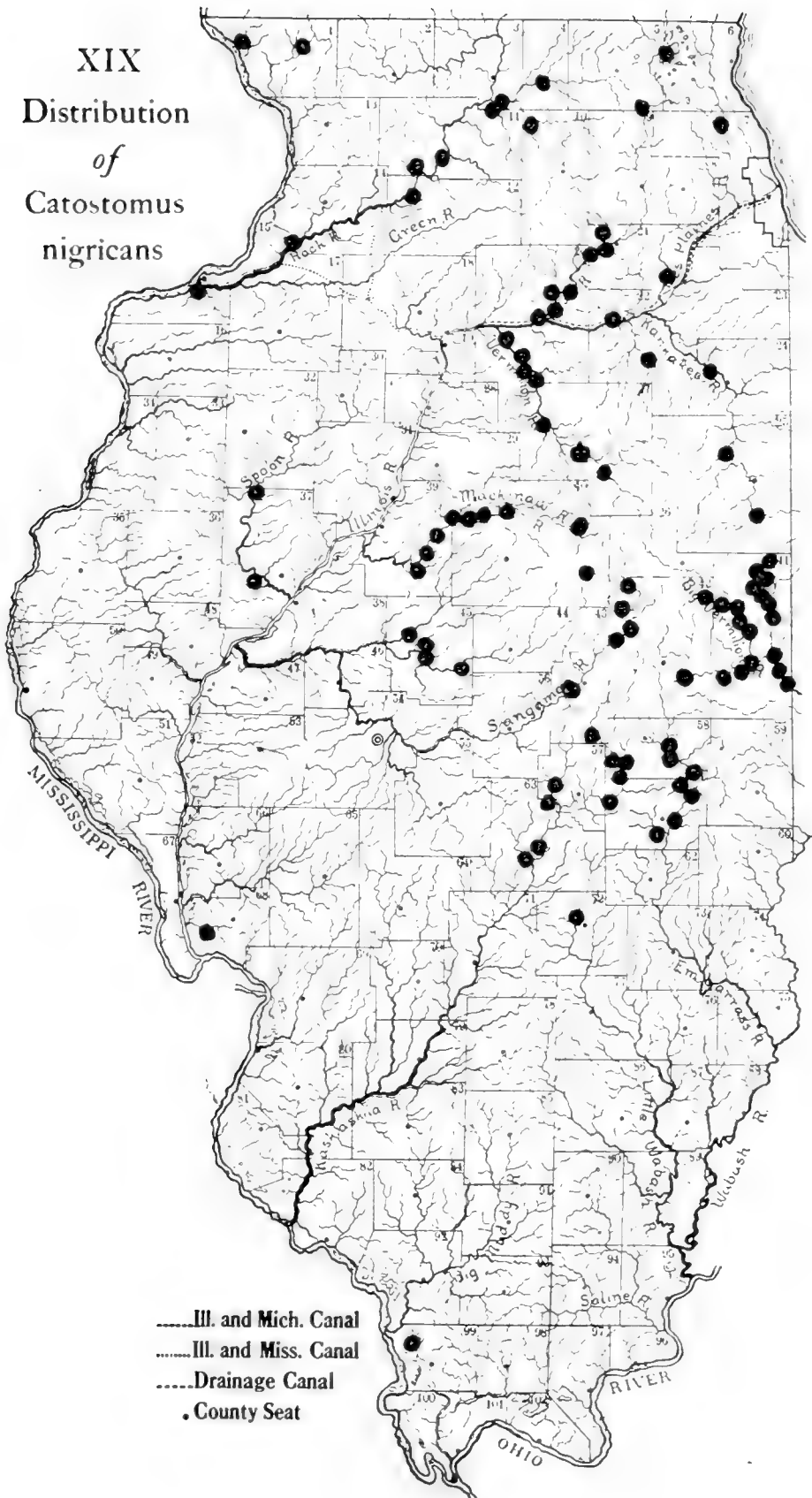


XVIII  
 Distribution  
 of  
*Catostomus*  
*commersonii*



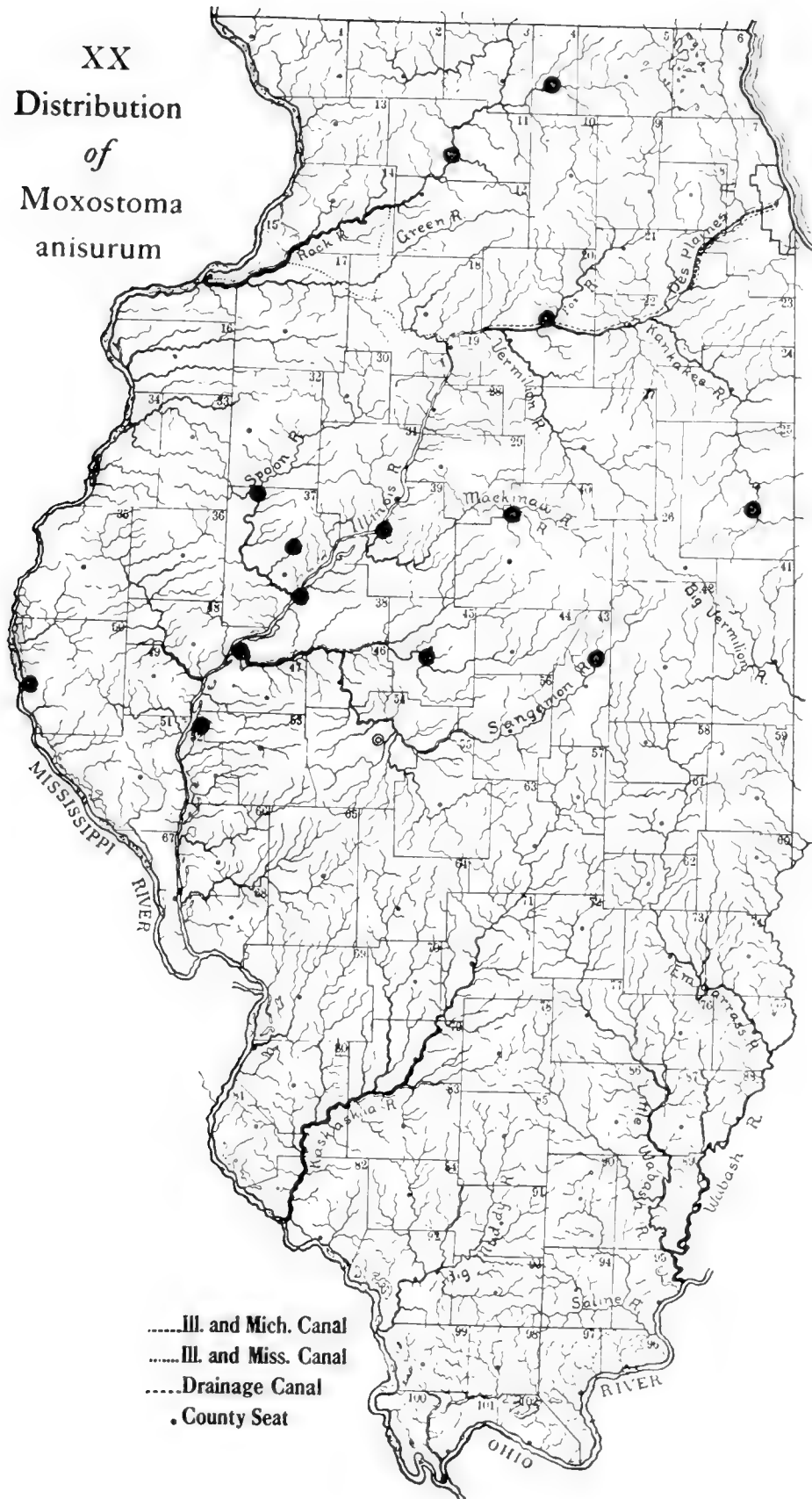
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XIX  
 Distribution  
 of  
*Catostomus*  
*nigricans*



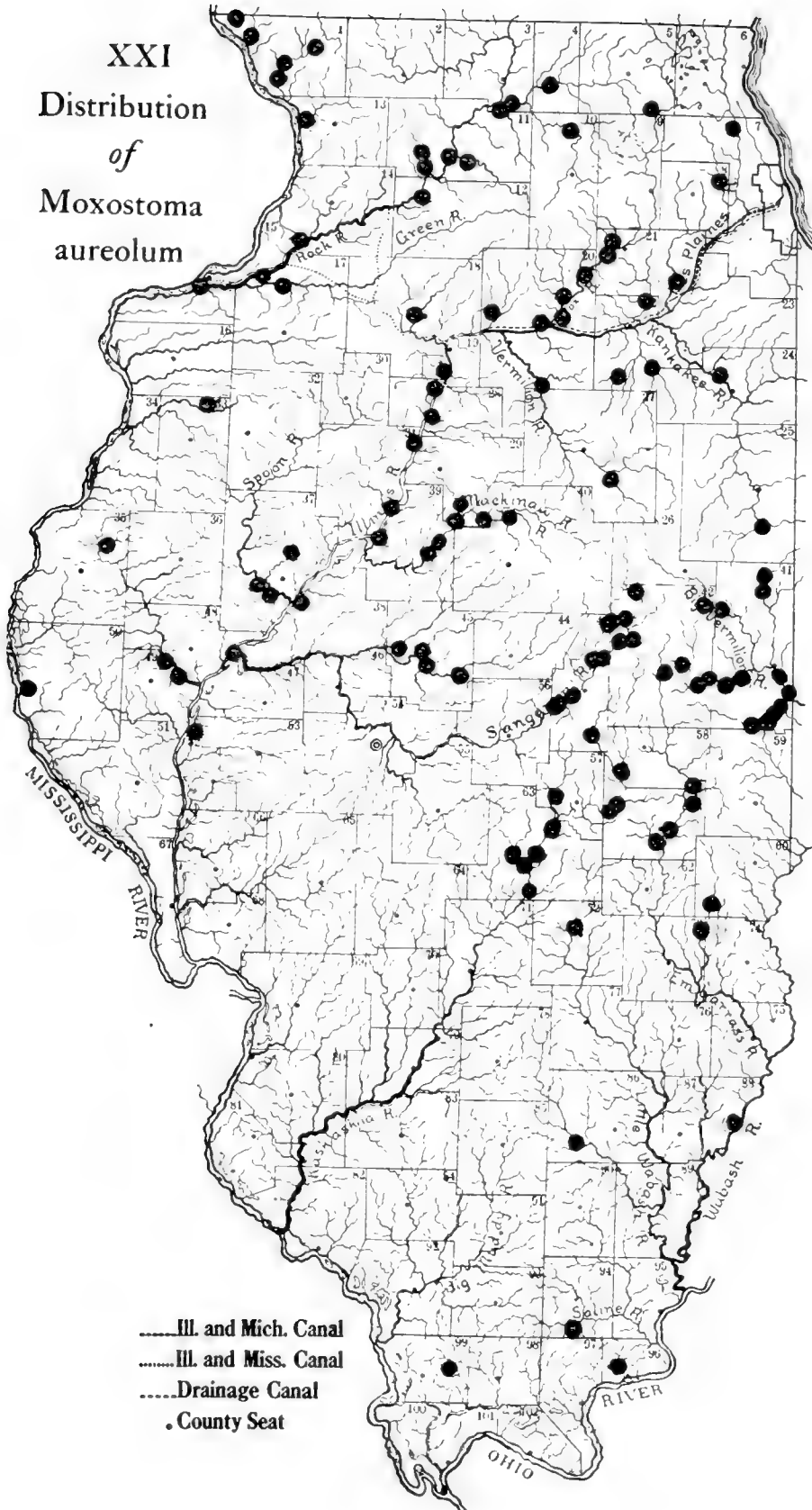
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XX  
 Distribution  
 of  
*Moxostoma*  
*anisurum*



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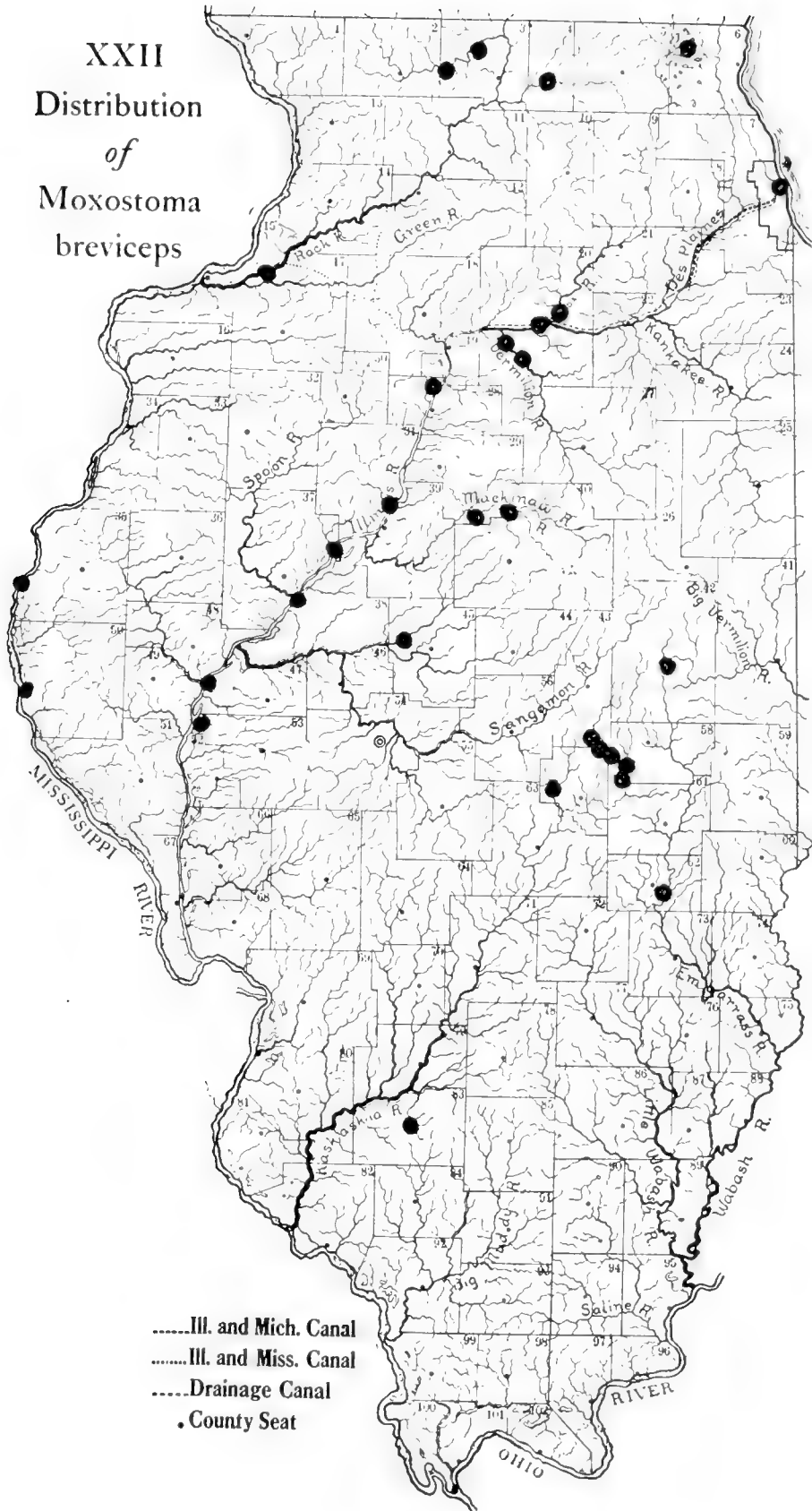
XXI  
 Distribution  
 of  
*Moxostoma*  
*aureolum*



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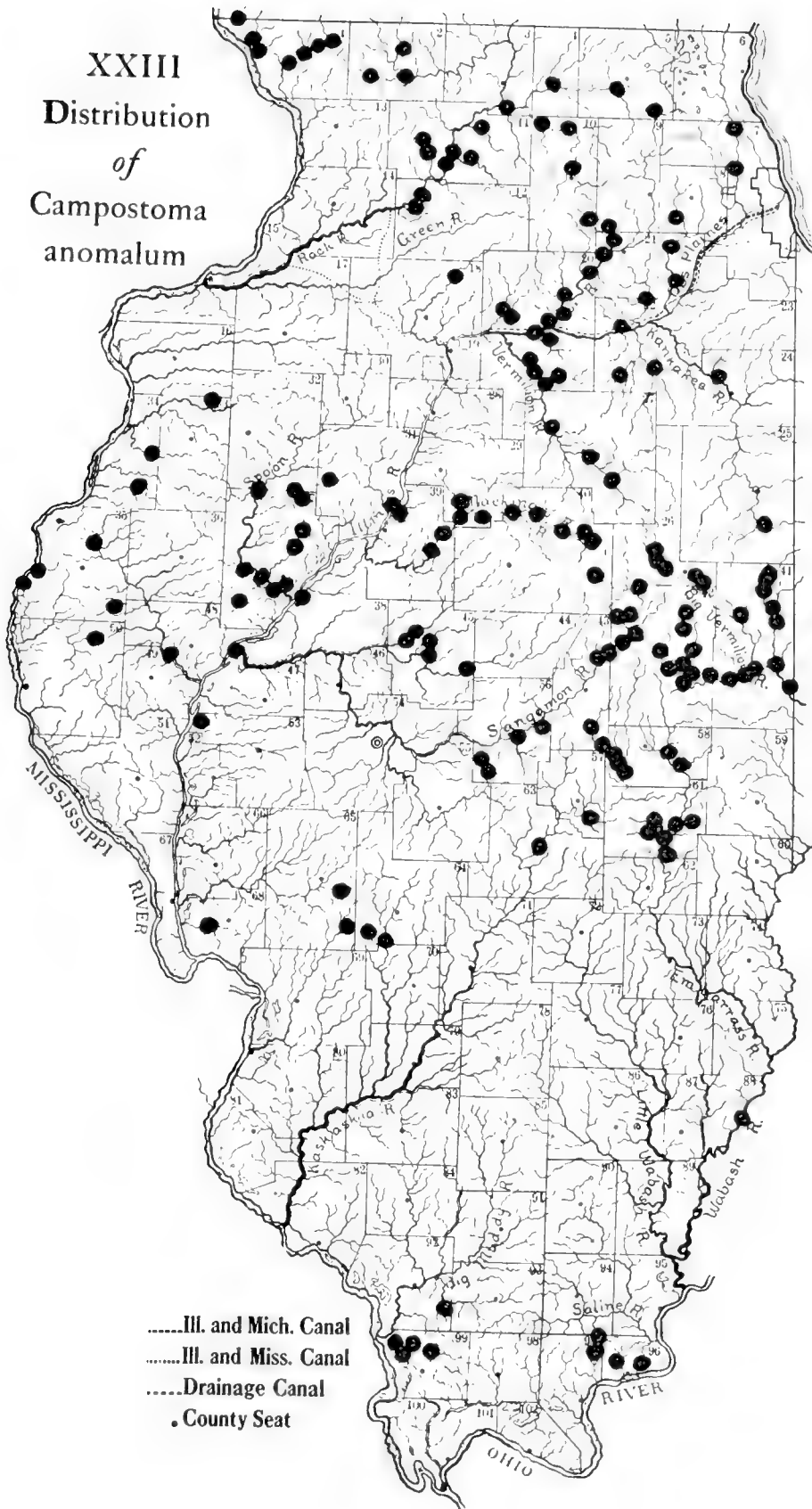


XXII  
 Distribution  
 of  
*Moxostoma*  
*breviceps*



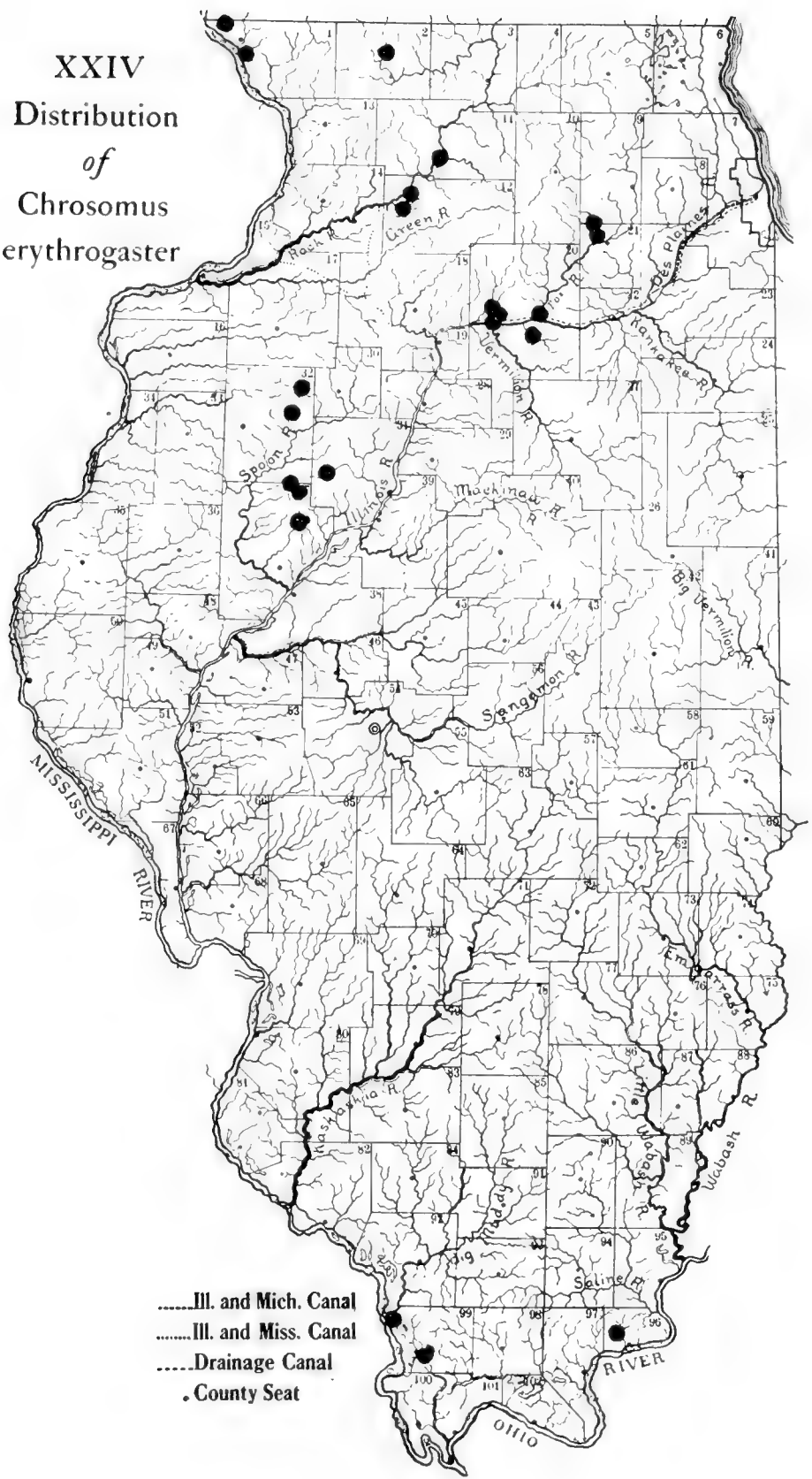
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XXIII  
 Distribution  
 of  
*Campostoma*  
*anomalum*



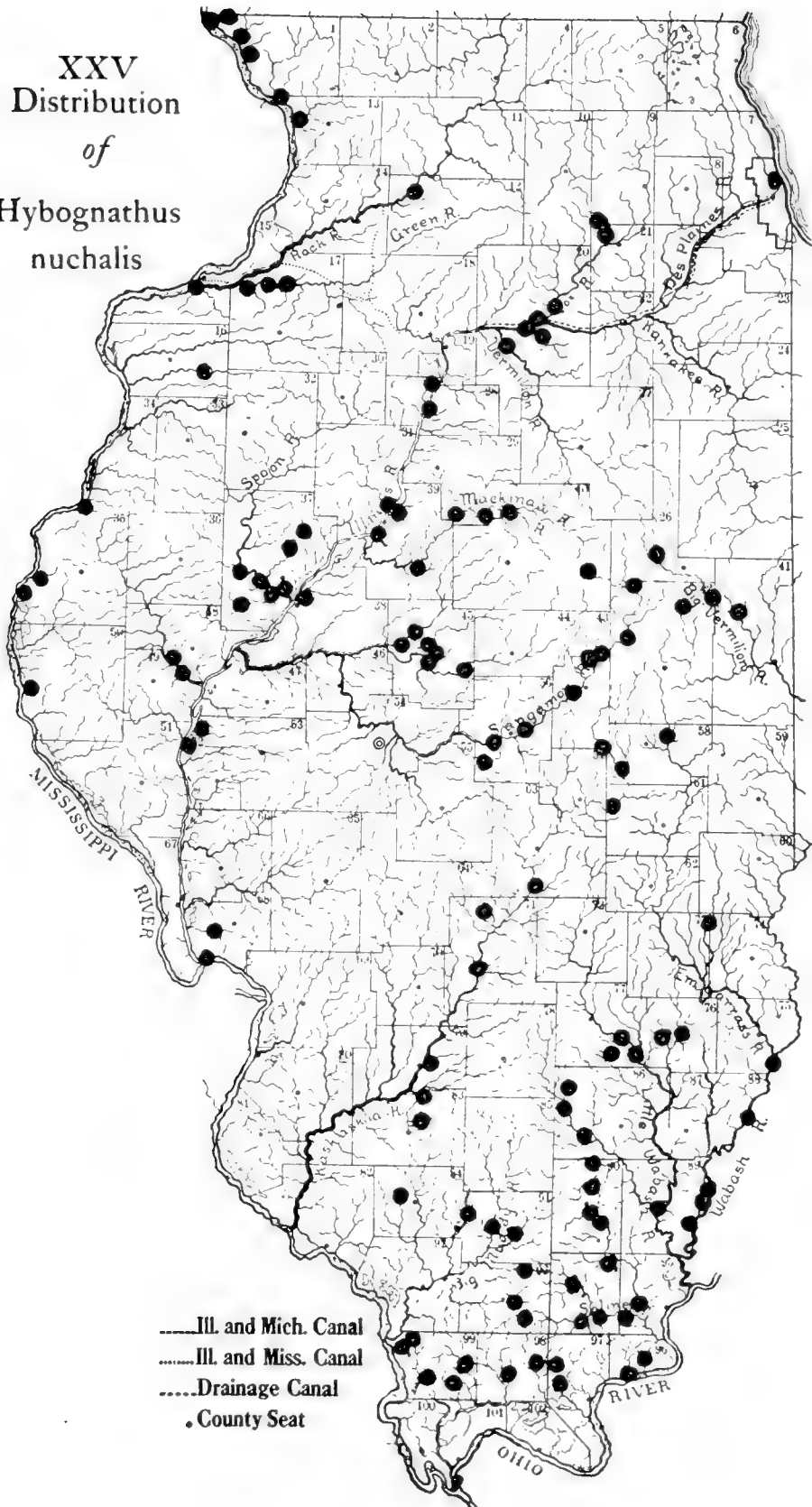
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XXIV  
 Distribution  
 of  
*Chrosomus*  
*erythrogastrer*



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XXV  
 Distribution  
 of  
*Hybognathus  
 nuchalis*



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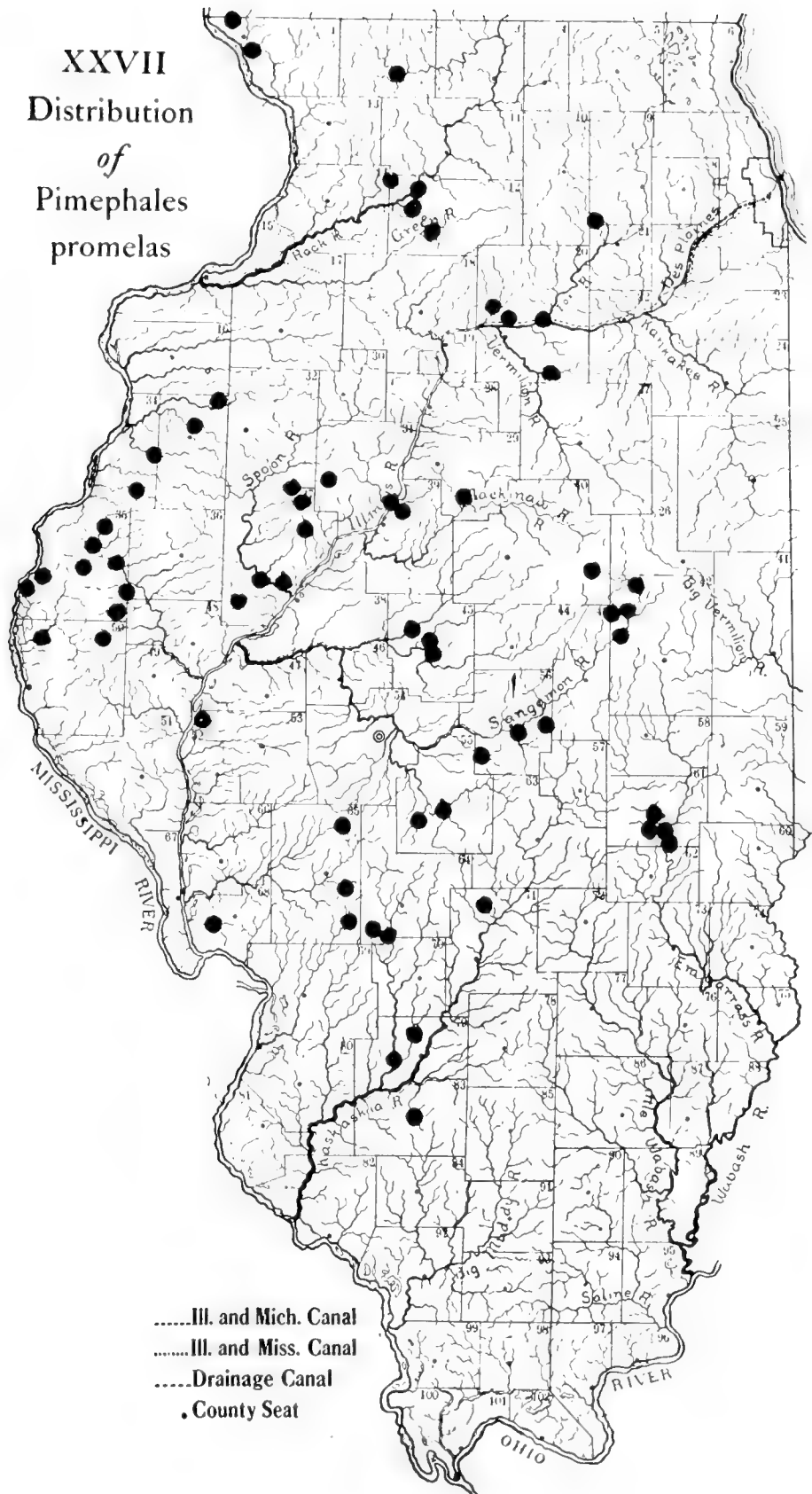


XXVI  
 Distribution  
 of  
*Hybognathus*  
*nubila*



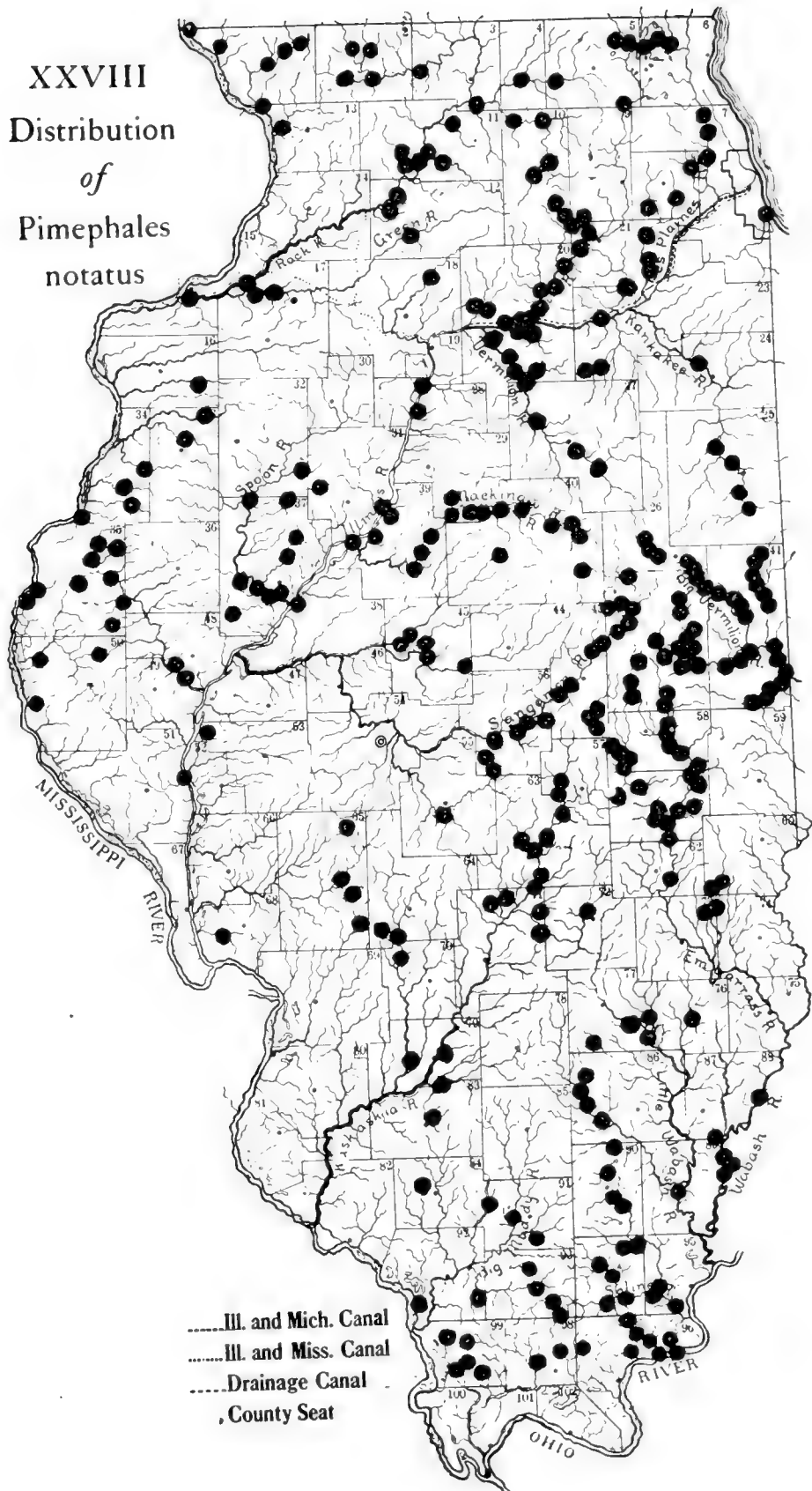
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XXVII  
 Distribution  
 of  
*Pimephales  
 promelas*



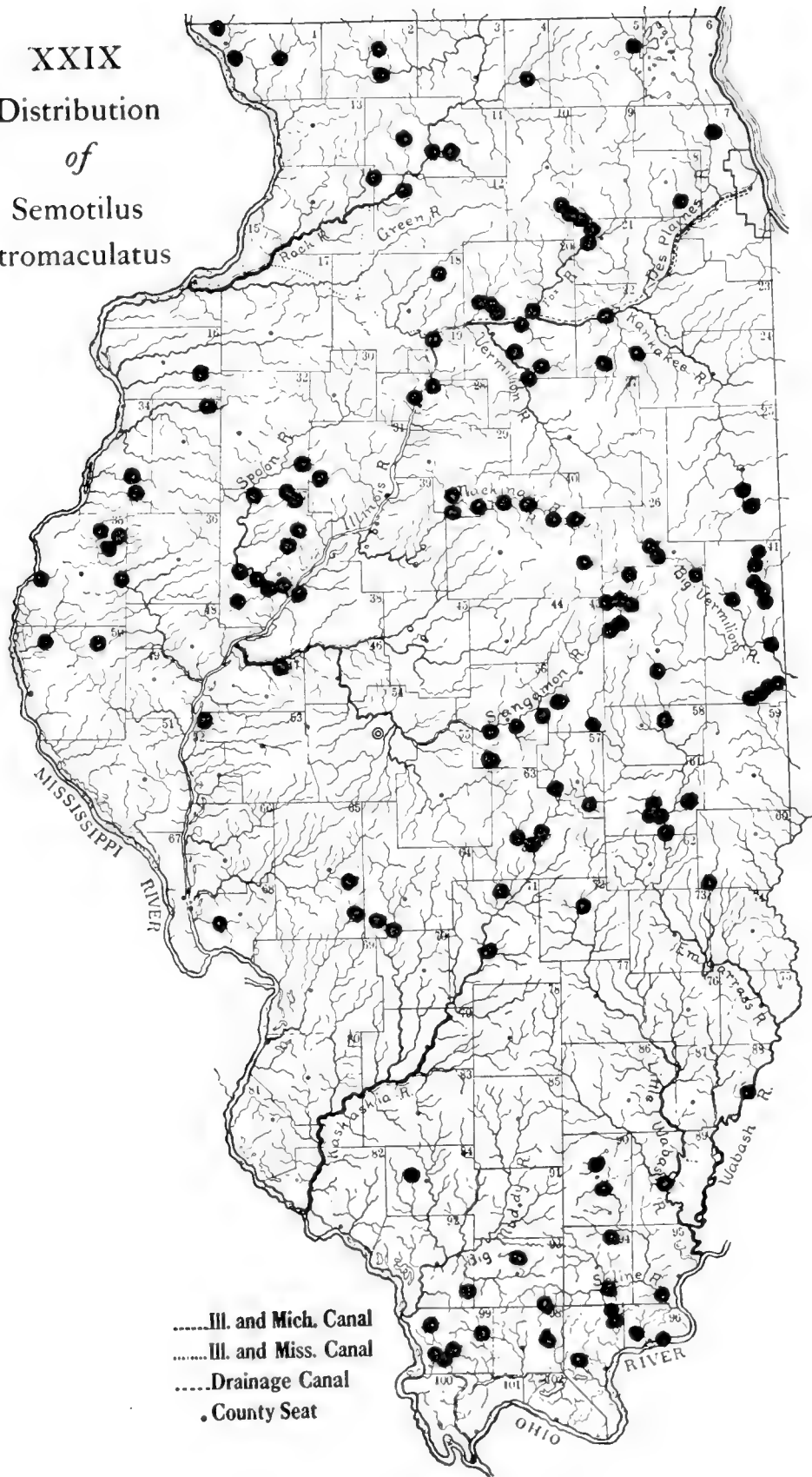
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XXVIII  
 Distribution  
 of  
*Pimephales*  
*notatus*



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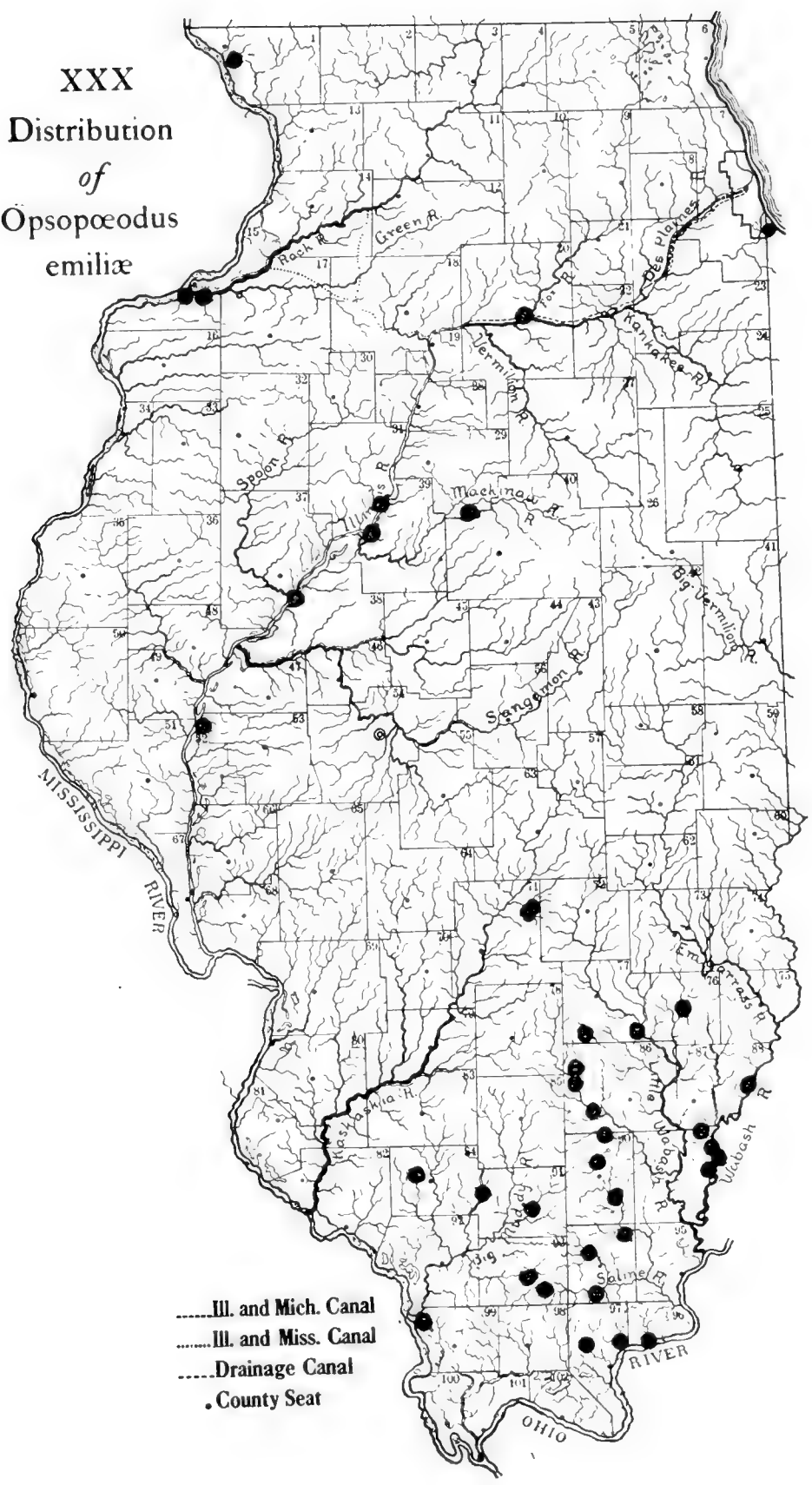
XXIX  
 Distribution  
 of  
*Semotilus*  
*atromaculatus*



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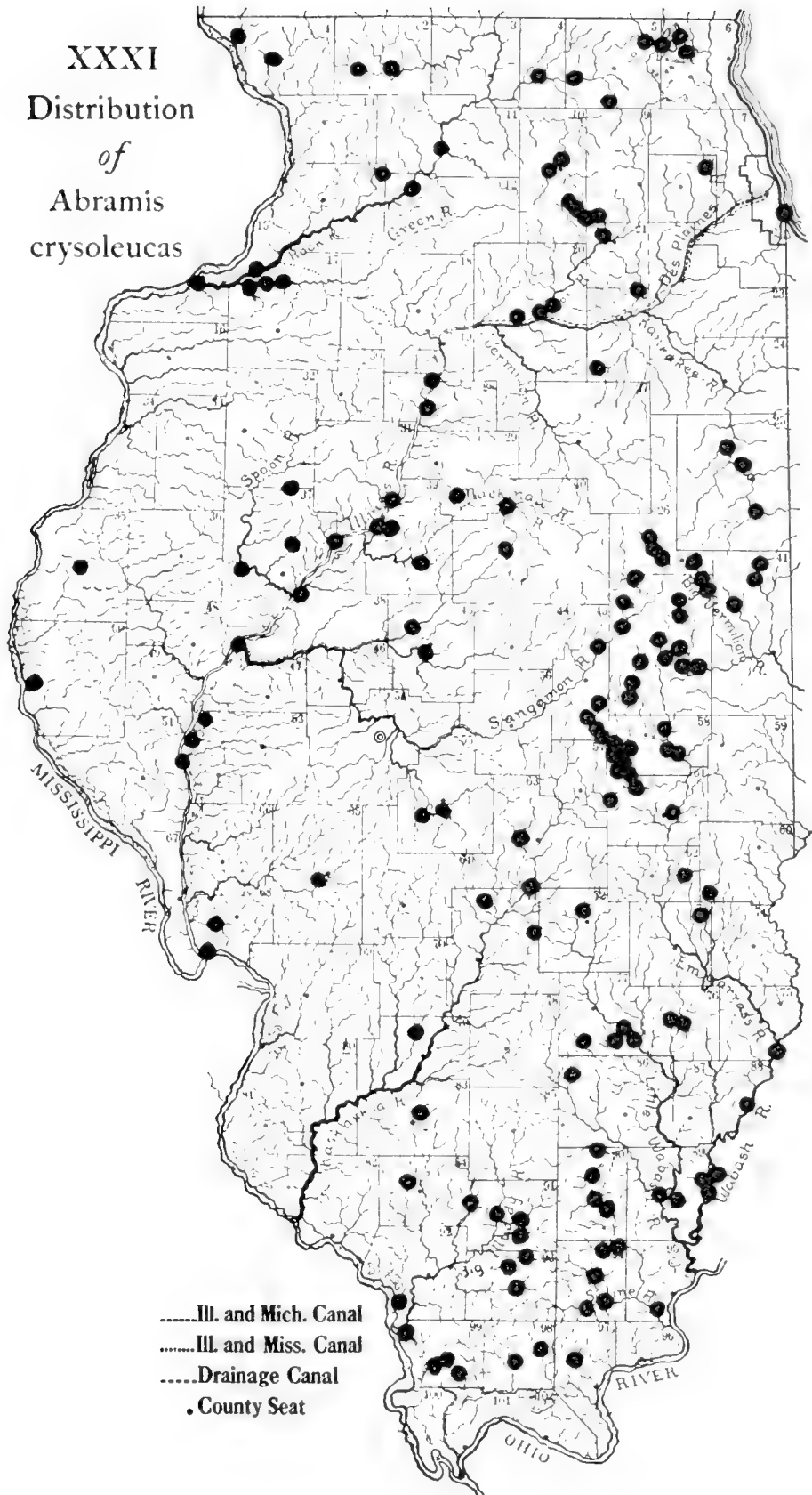


XXX  
 Distribution  
 of  
*Opsopæodus*  
*emiliæ*



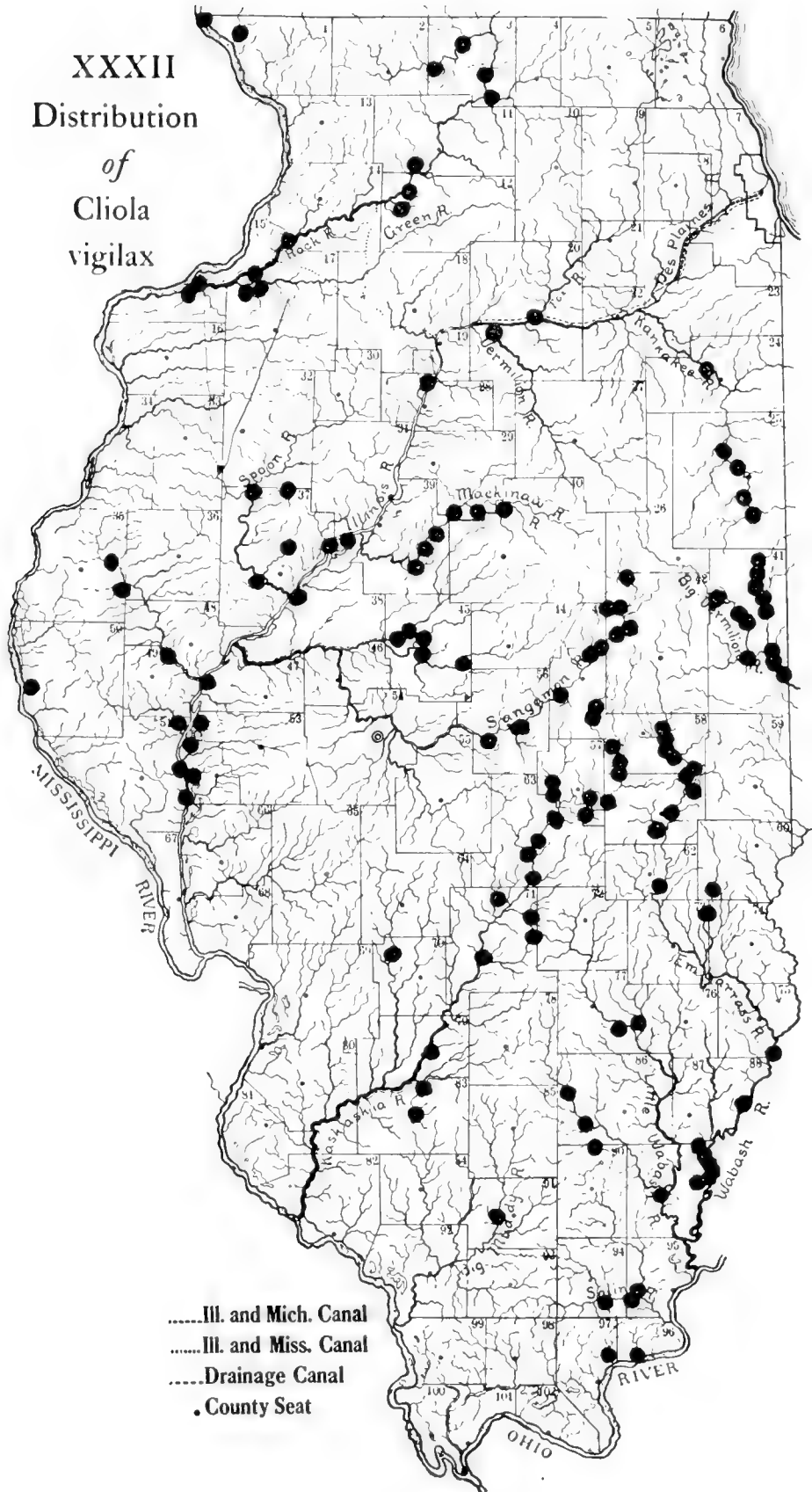
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 Distribution  
 of  
*Abramis*  
*crysoleucas*



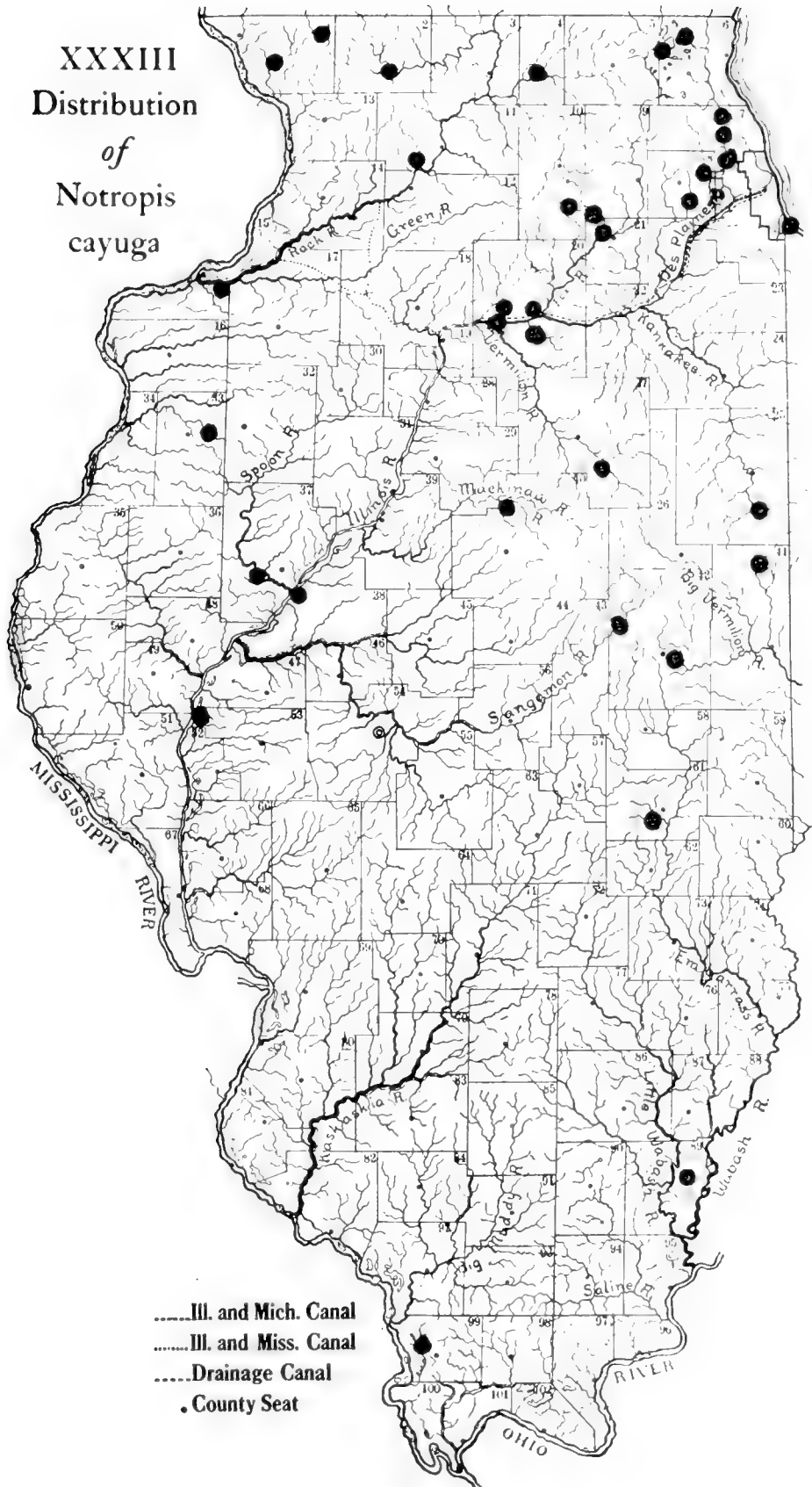
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XXXII  
 Distribution  
 of  
*Cliola*  
*vigilax*



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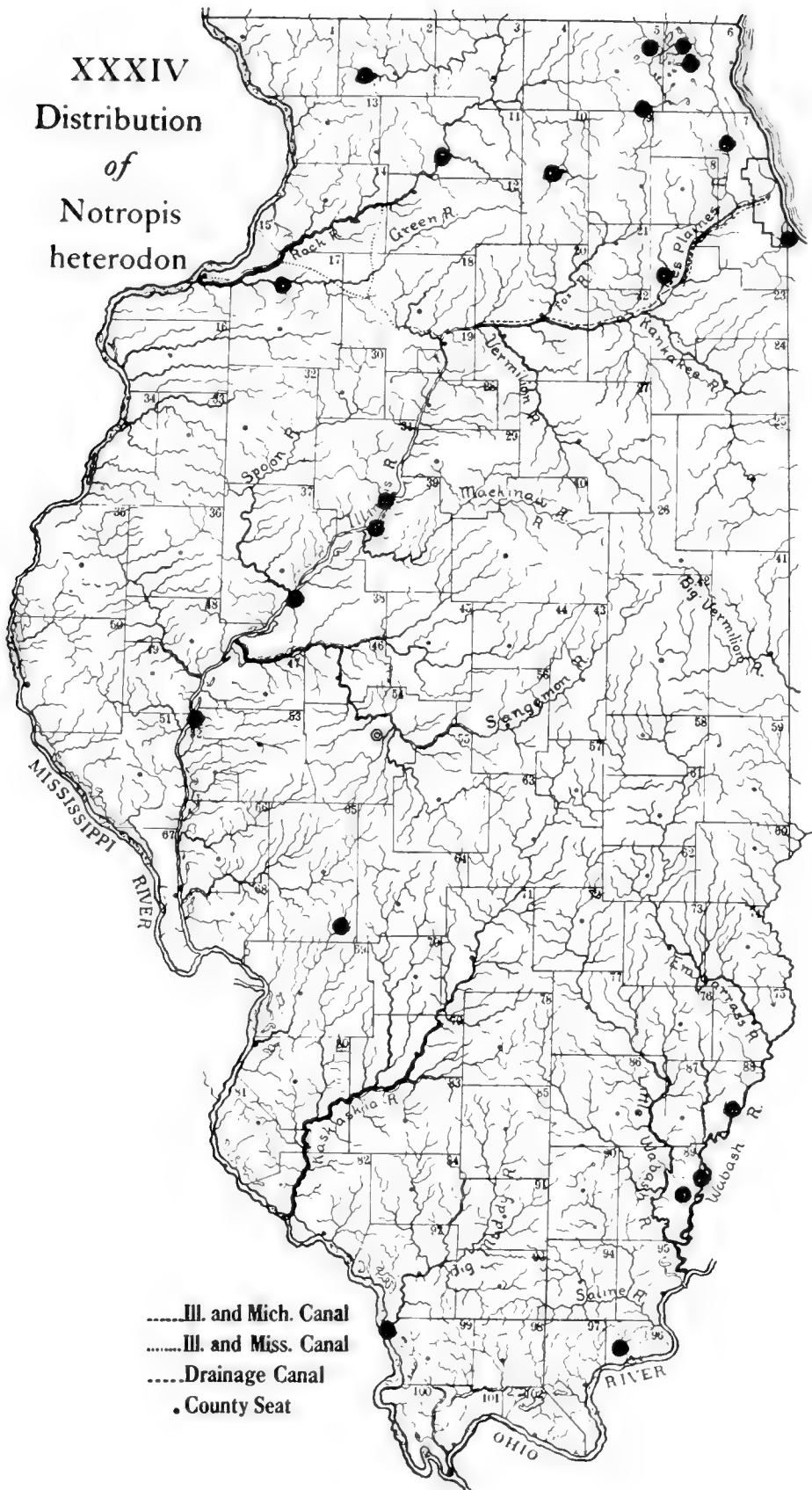
XXXIII  
 Distribution  
 of  
*Notropis  
 cayuga*



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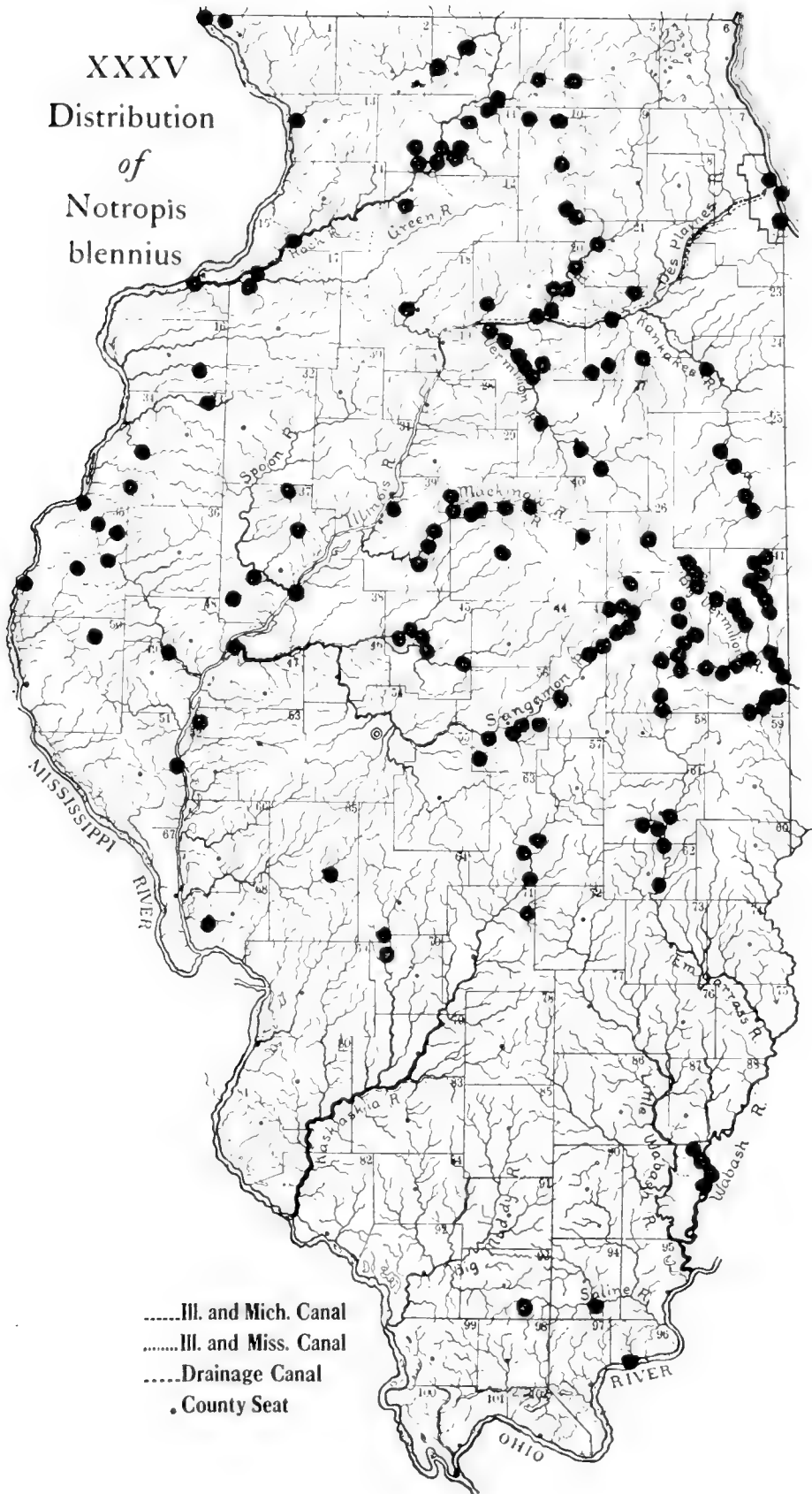


XXXIV  
 Distribution  
 of  
*Notropis heterodon*



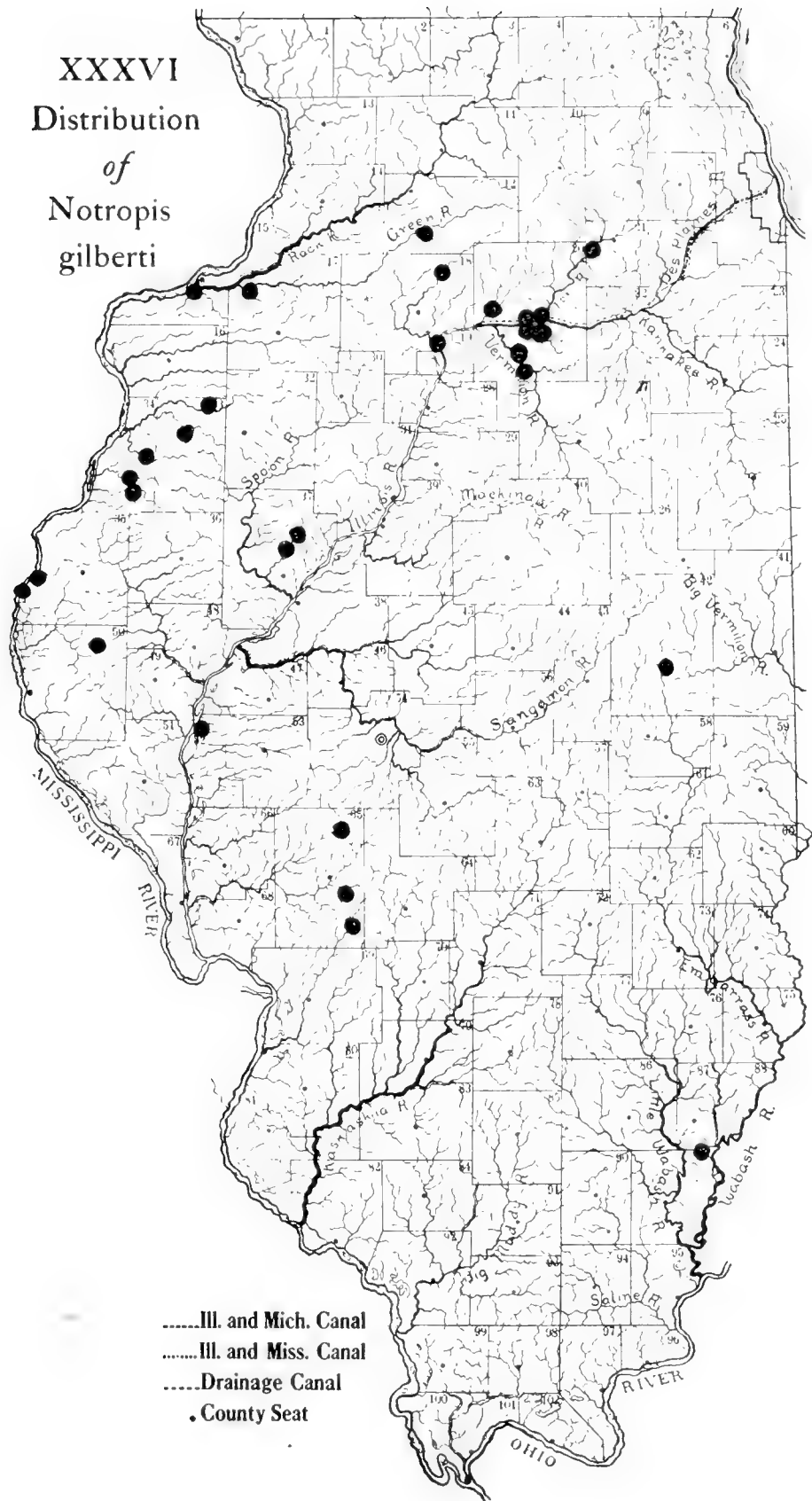
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XXXV  
 Distribution  
 of  
*Notropis*  
*blennius*



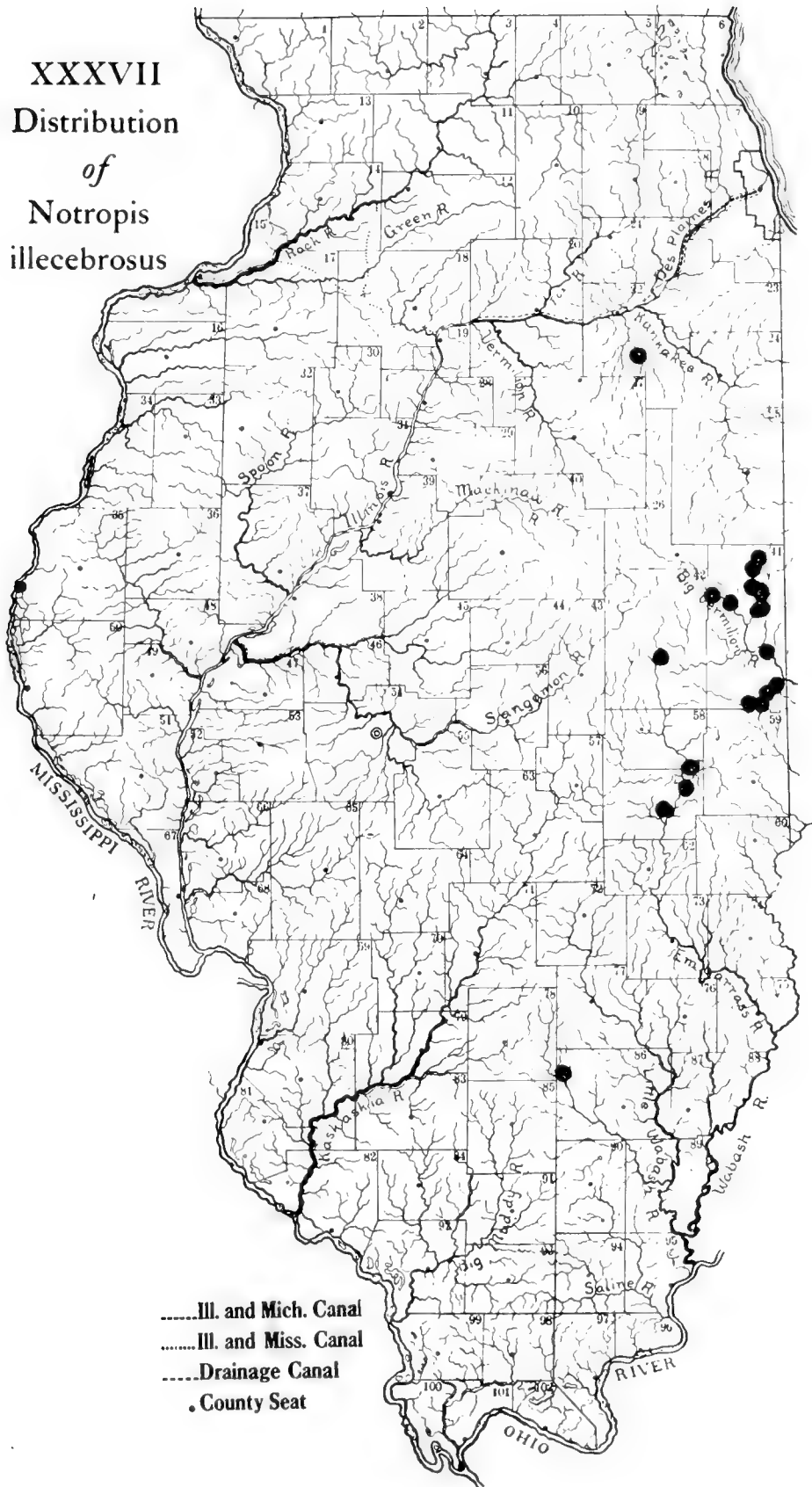
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XXXVI  
 Distribution  
 of  
*Notropis gilberti*



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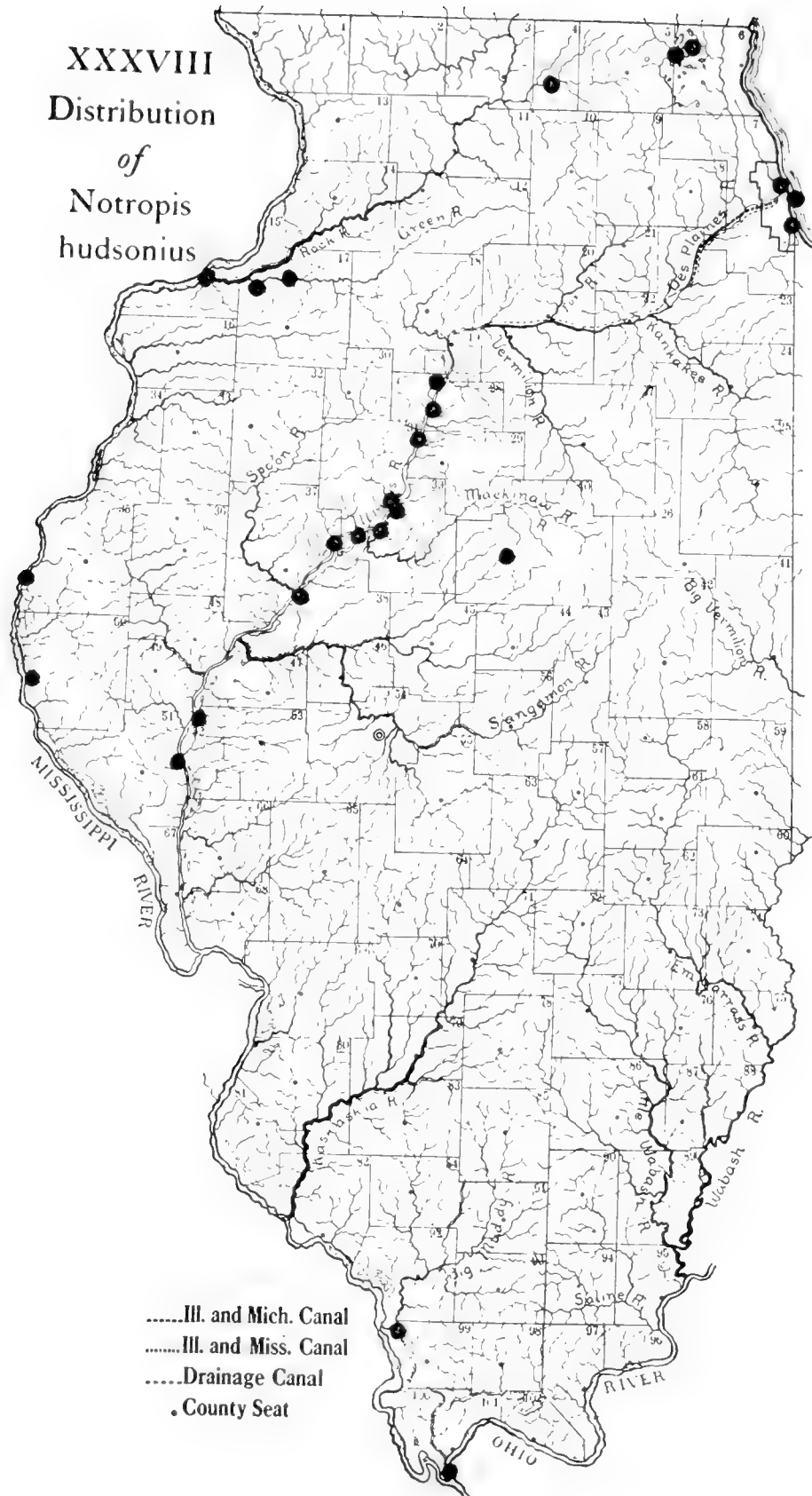
XXXVII  
 Distribution  
 of  
*Notropis*  
*illecebrosus*



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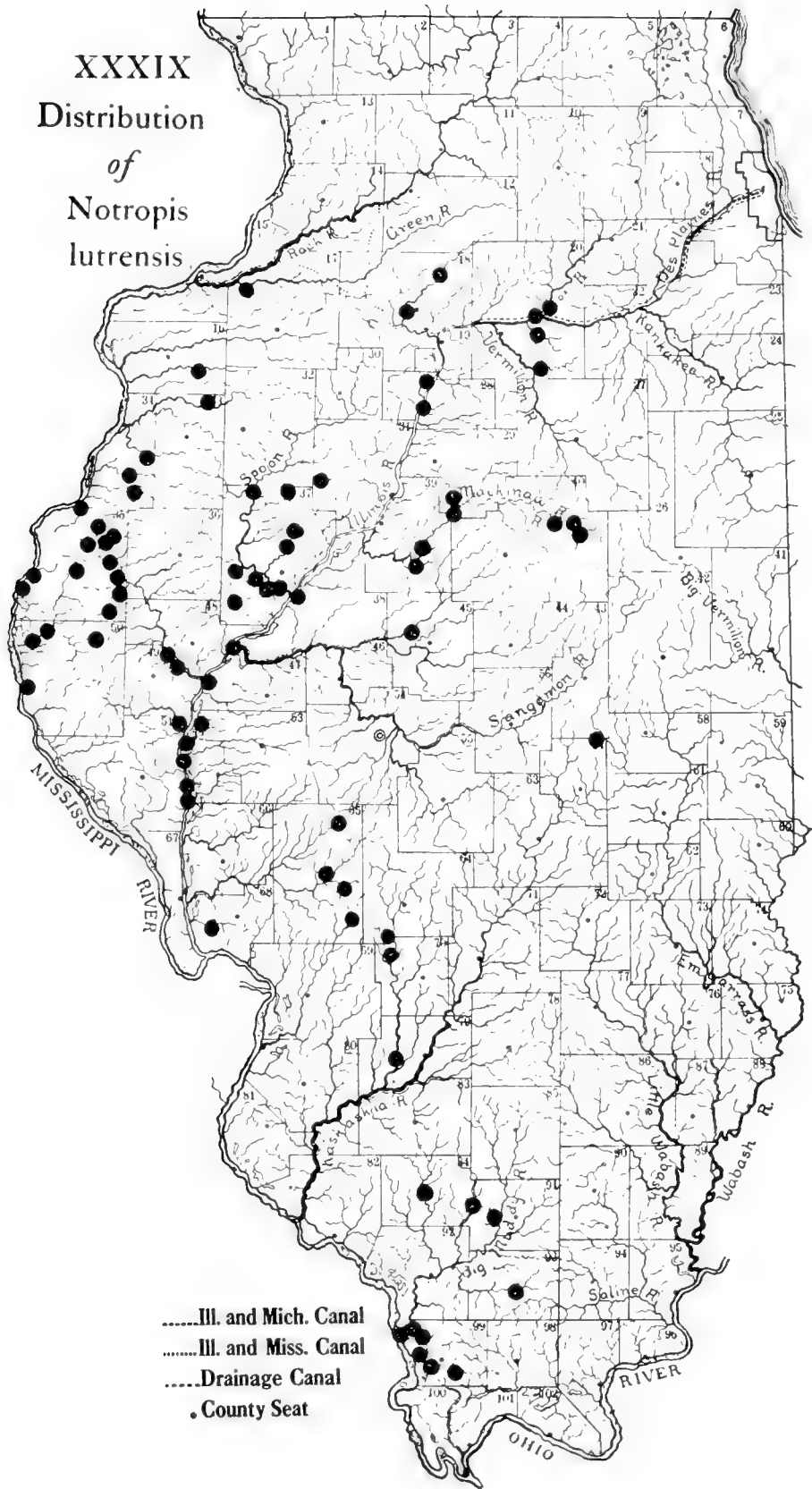


XXXVIII  
 Distribution  
 of  
*Notropis*  
*hudsonius*



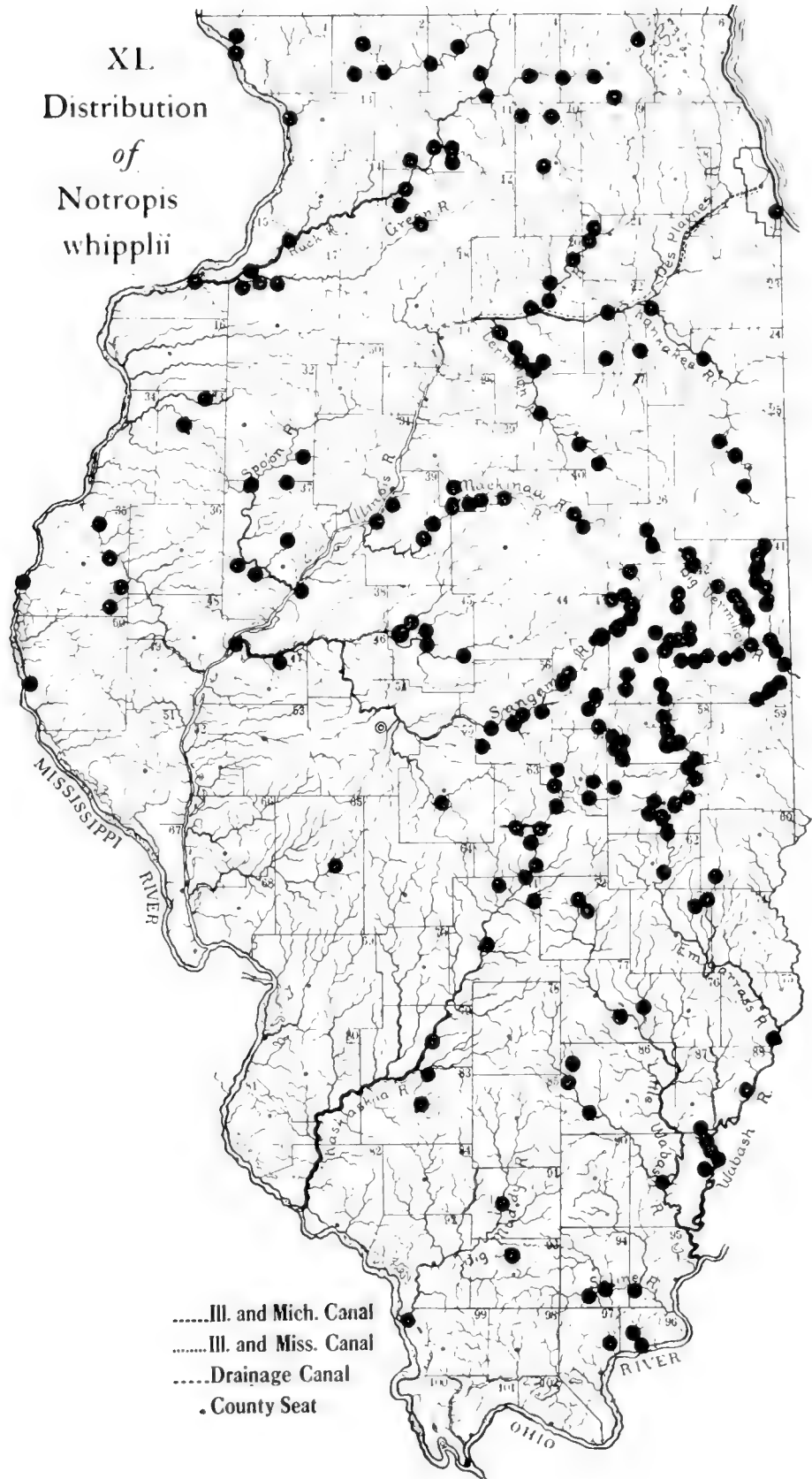
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XXXIX  
 Distribution  
 of  
*Notropis  
 lutrensis*



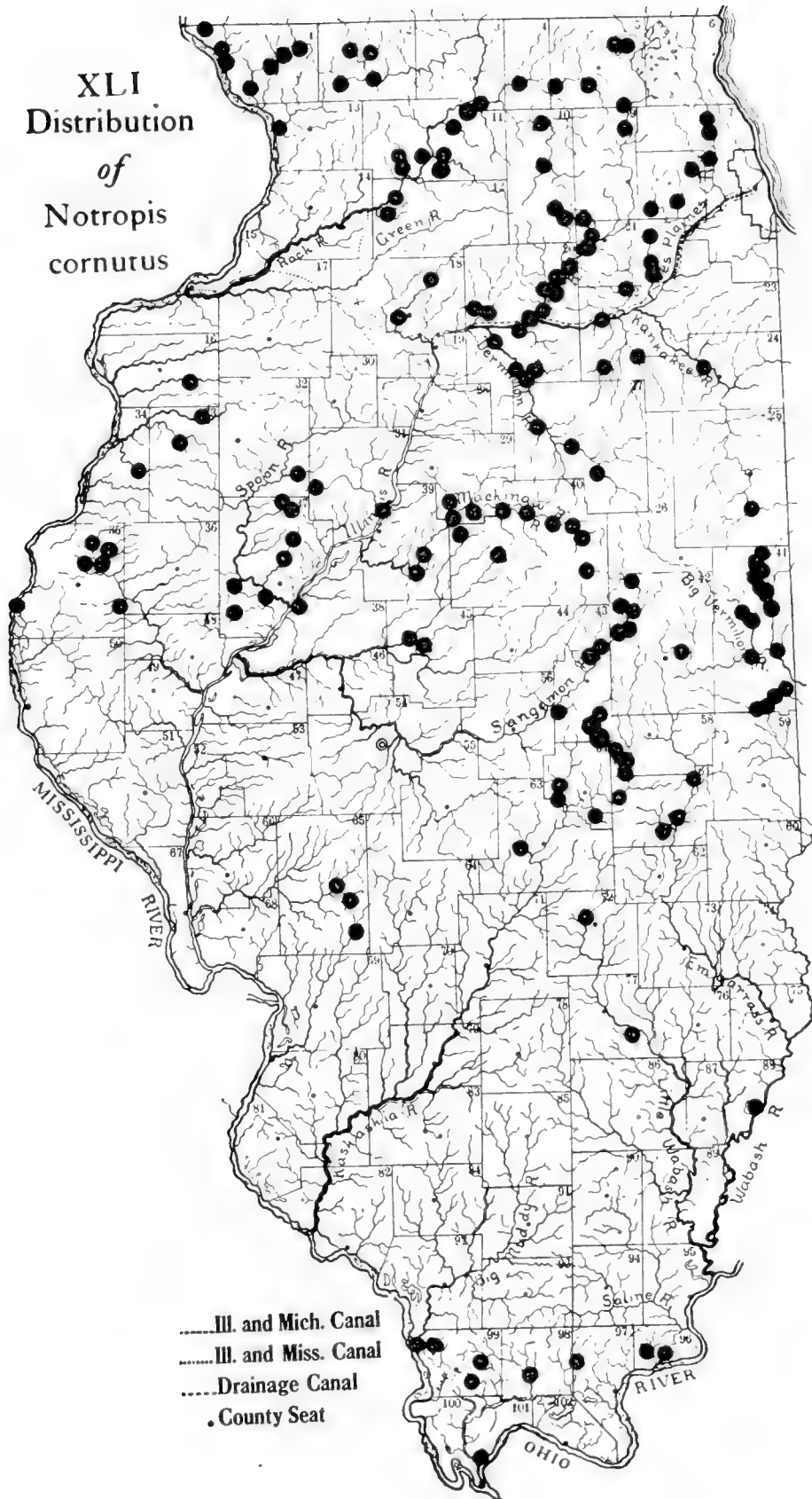
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XL.  
 Distribution  
 of  
*Notropis  
 whipplii*



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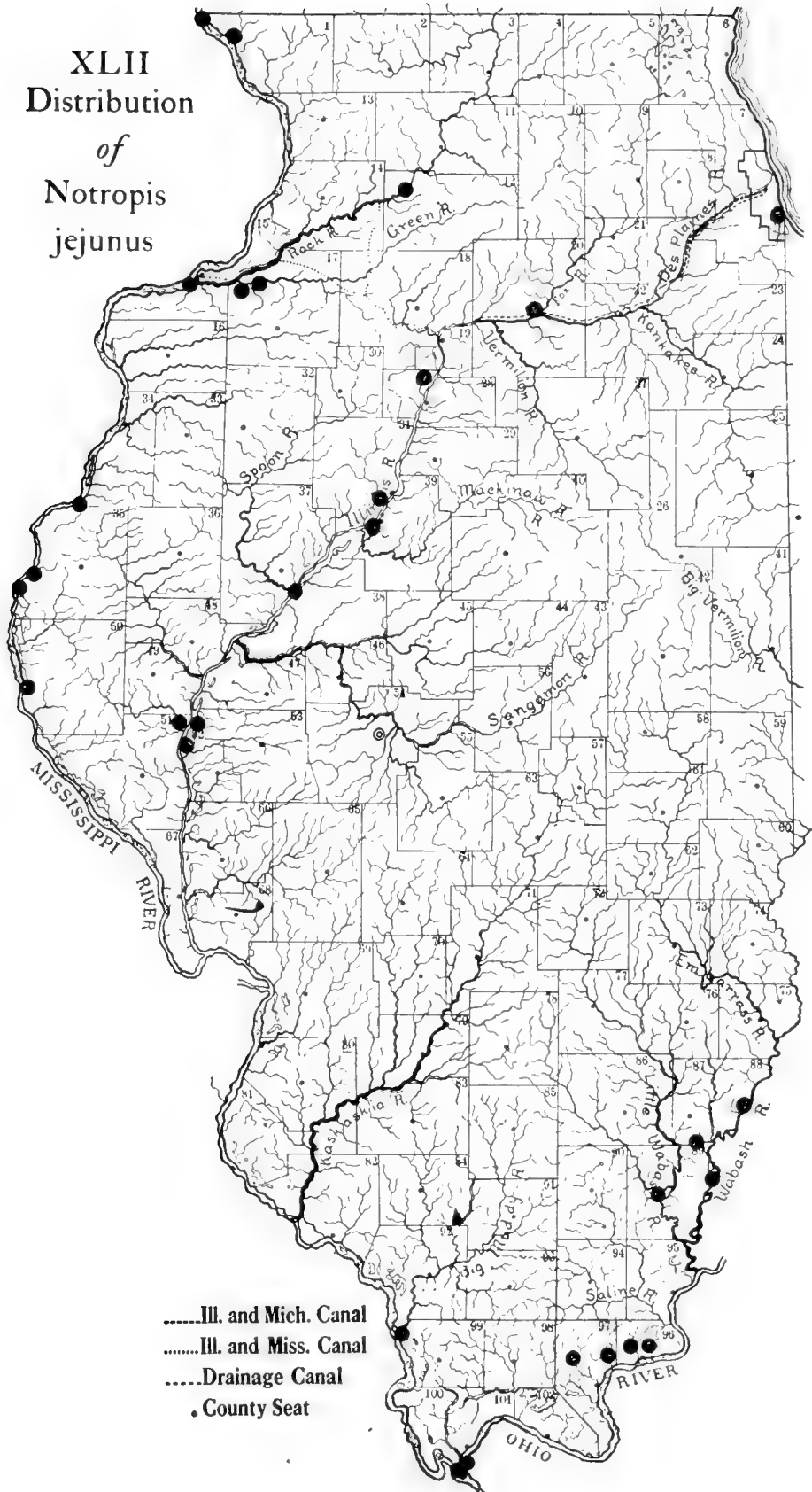
XLI  
 Distribution  
 of  
*Notropis  
 cornutus*



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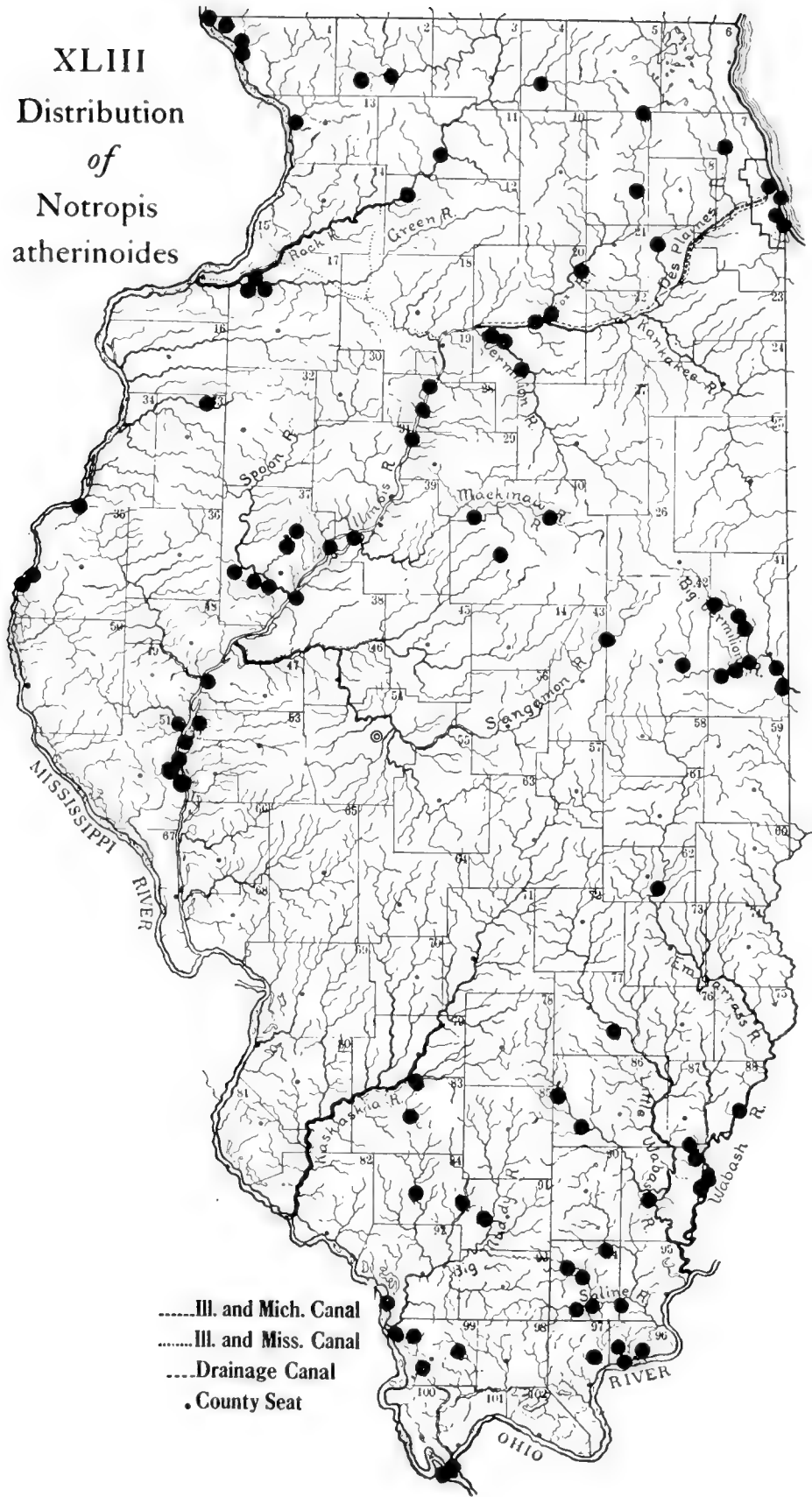


XLII  
 Distribution  
 of  
*Notropis  
 jejunos*



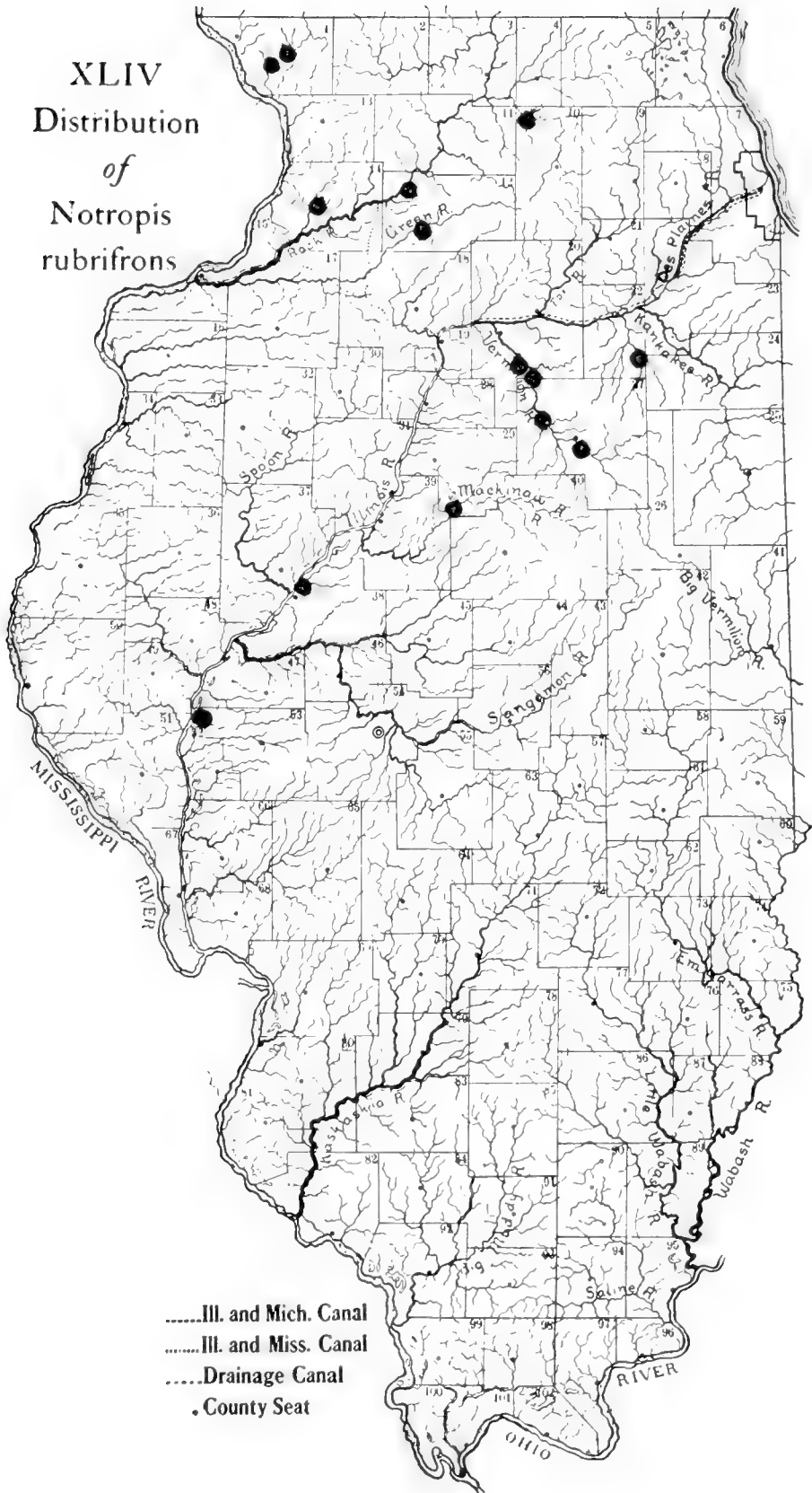
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**XLIII**  
**Distribution**  
*of*  
**Notropis**  
**atherinoides**



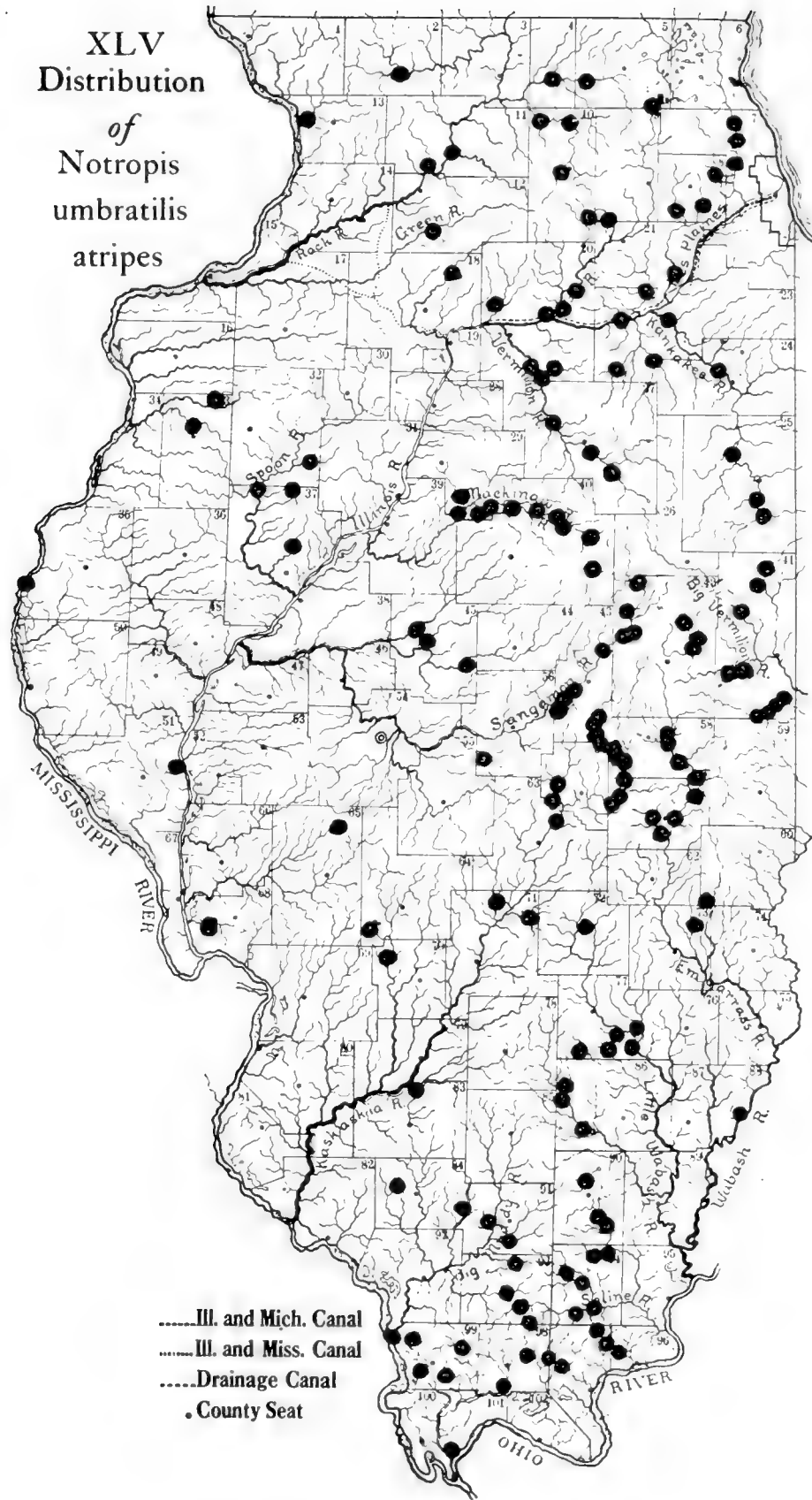
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XLIV  
 Distribution  
 of  
*Notropis  
 rubrifrons*





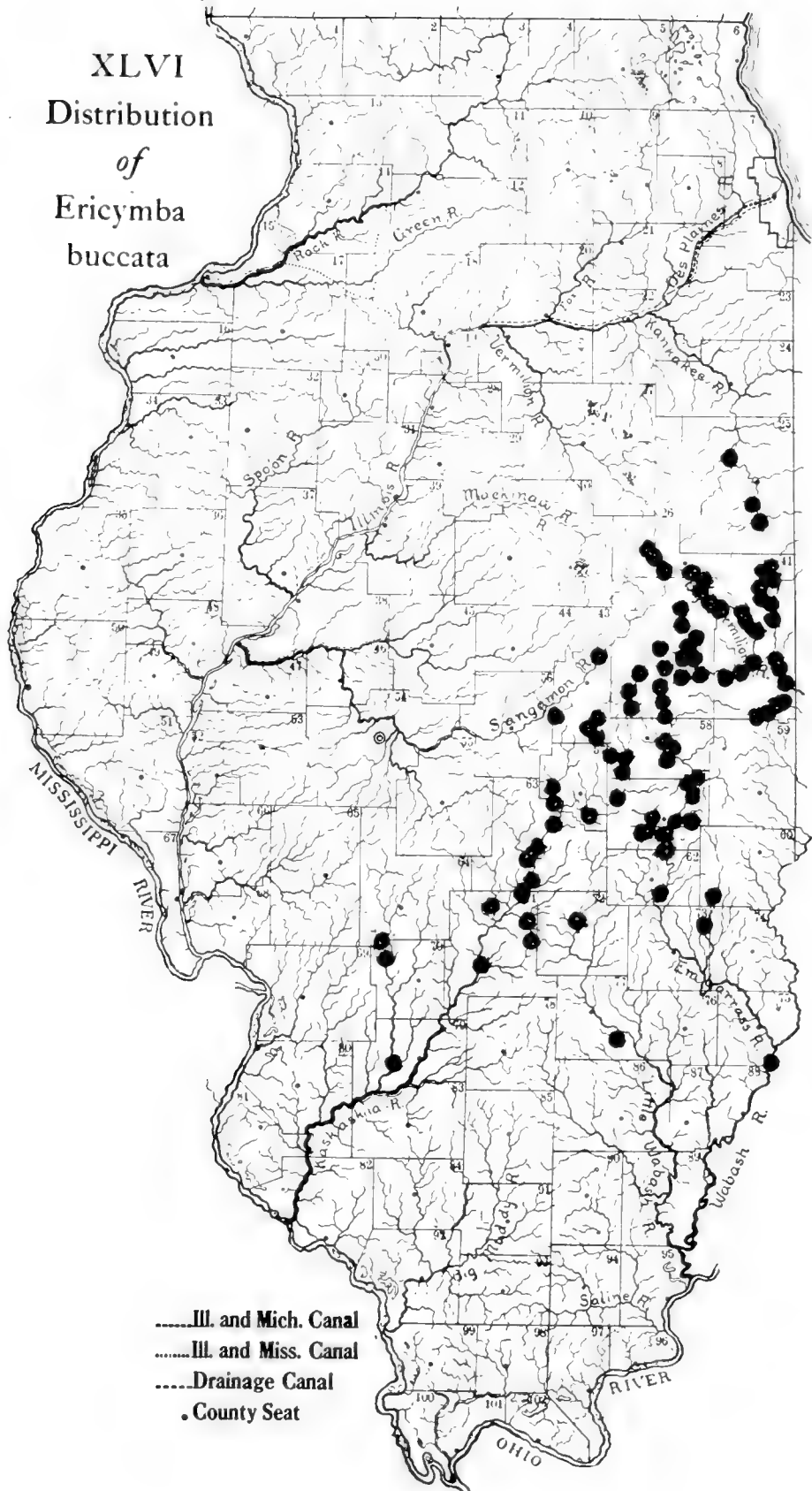
**XLV**  
**Distribution**  
*of*  
**Notropis**  
*umbratilis*  
**atripes**



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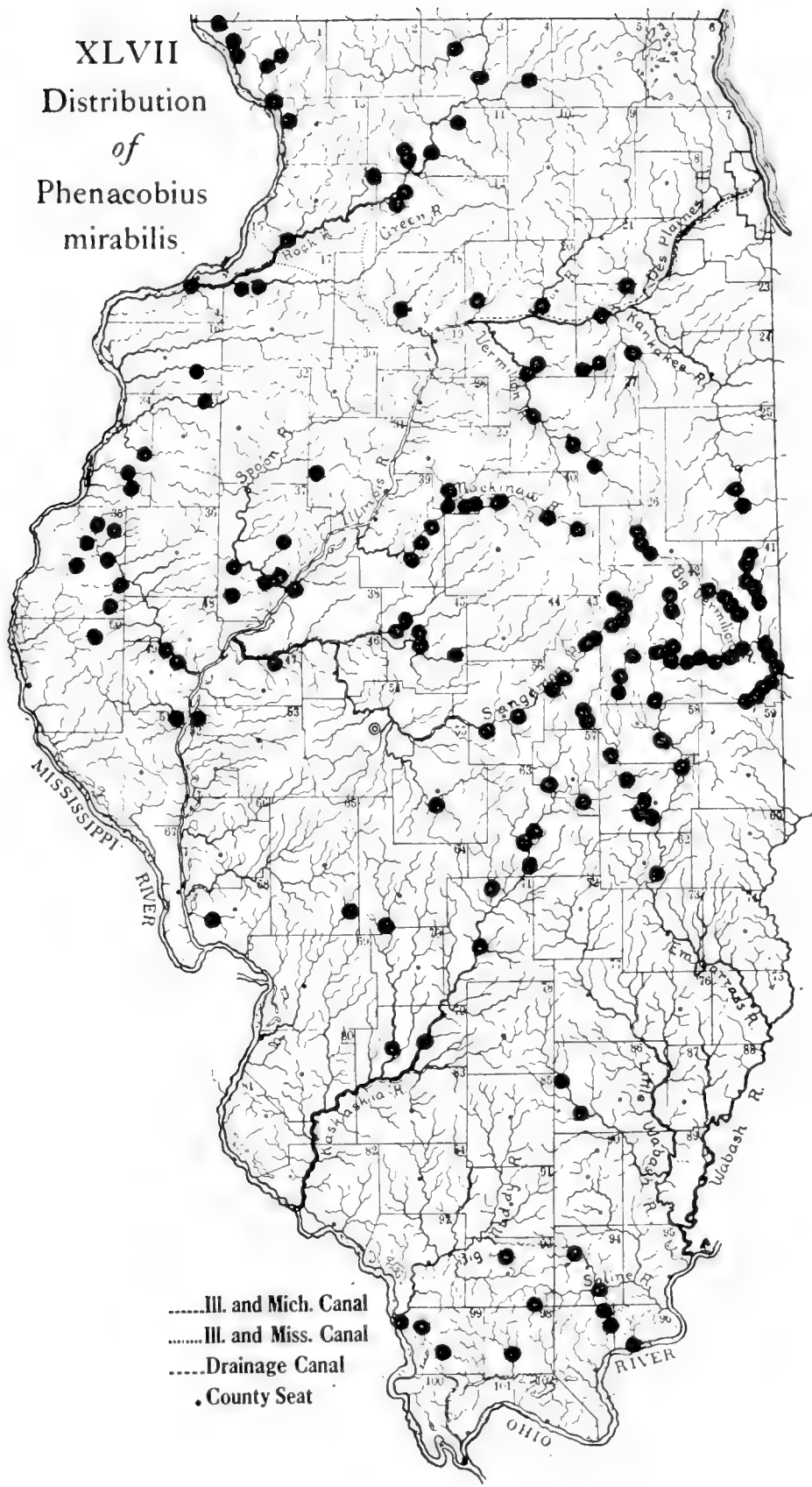


XLVI  
 Distribution  
 of  
*Ericymba*  
*buccata*



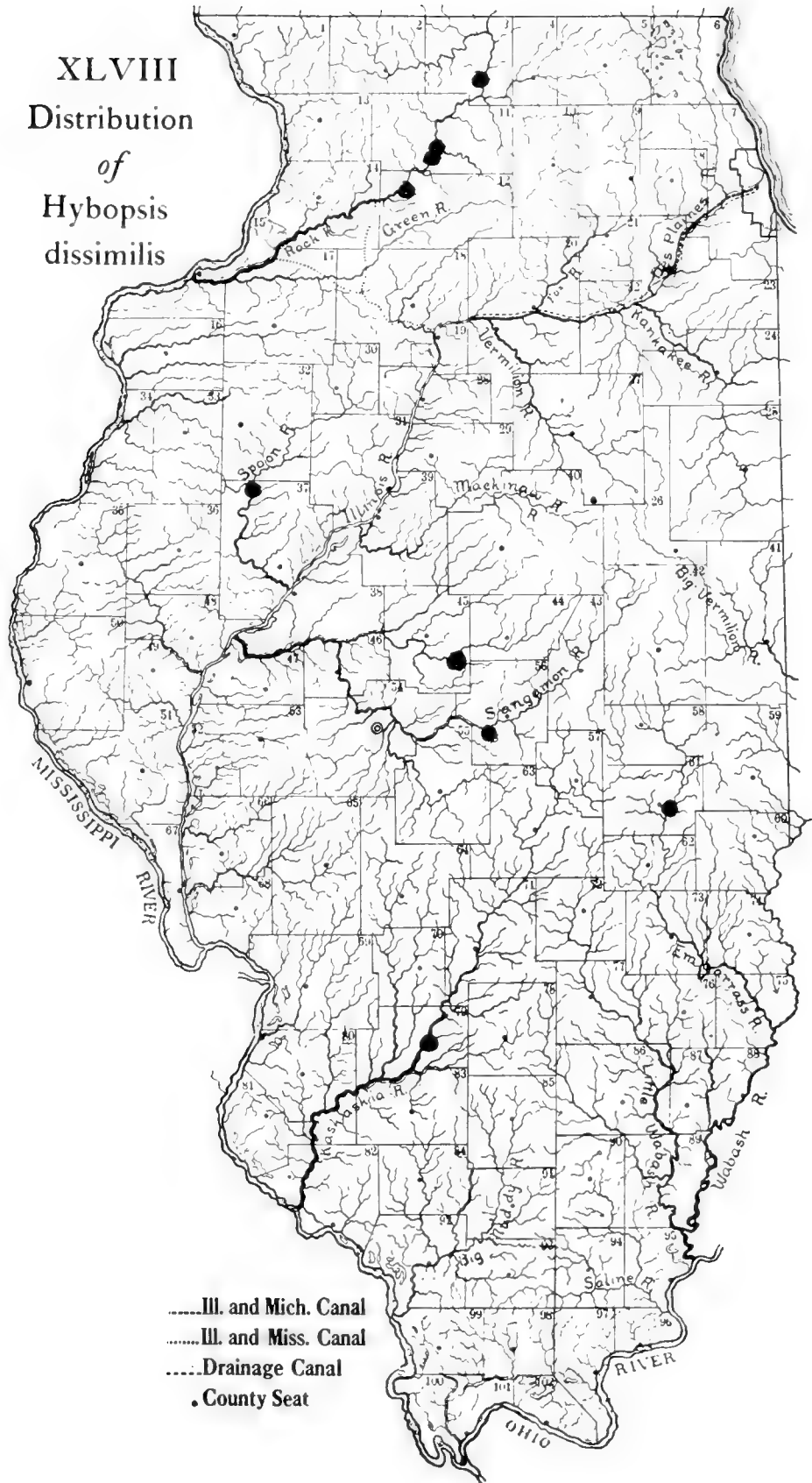
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XLVII  
 Distribution  
 of  
*Phenacobius*  
*mirabilis*



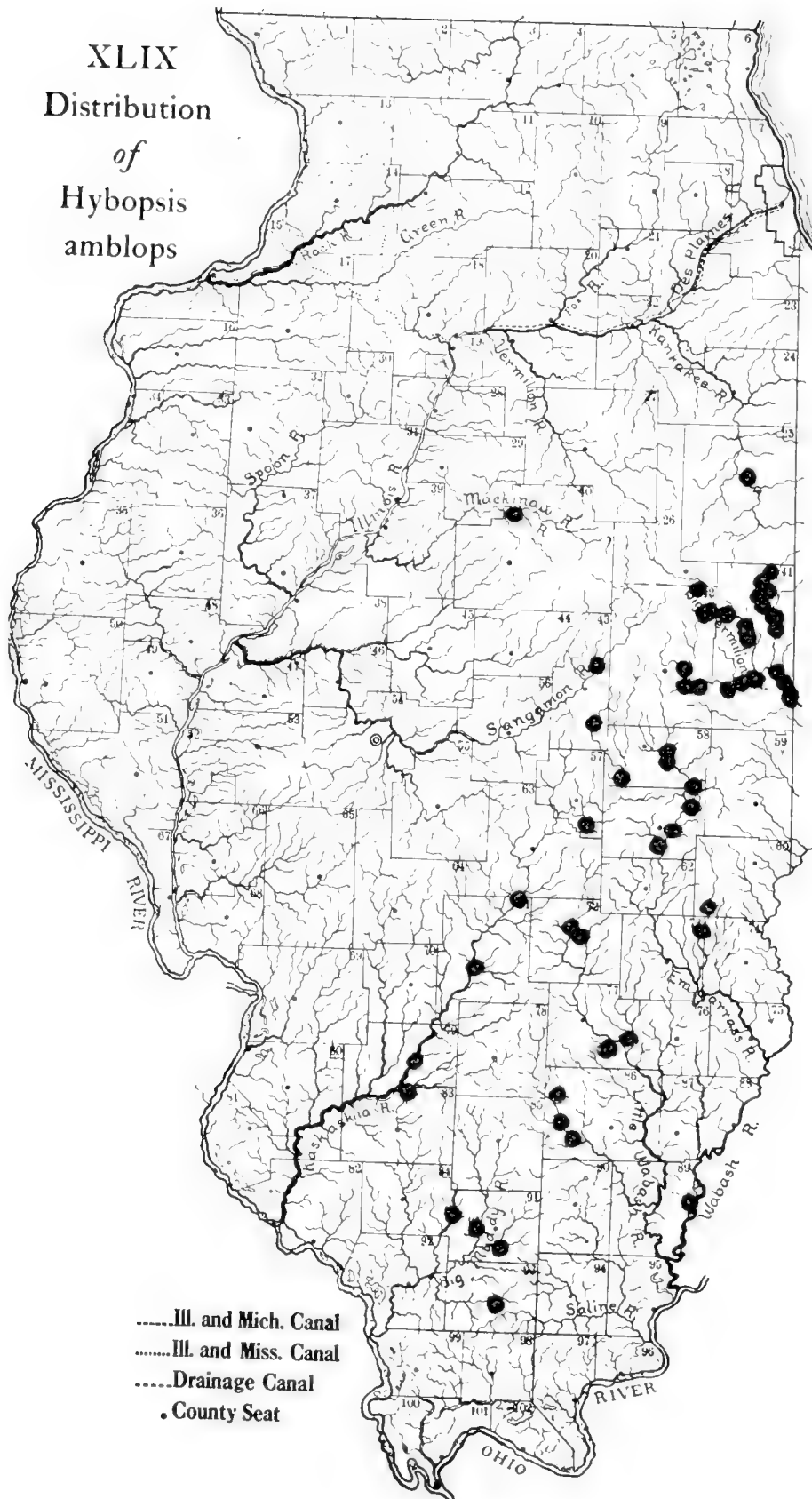
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XLVIII  
 Distribution  
 of  
*Hybopsis*  
*dissimilis*



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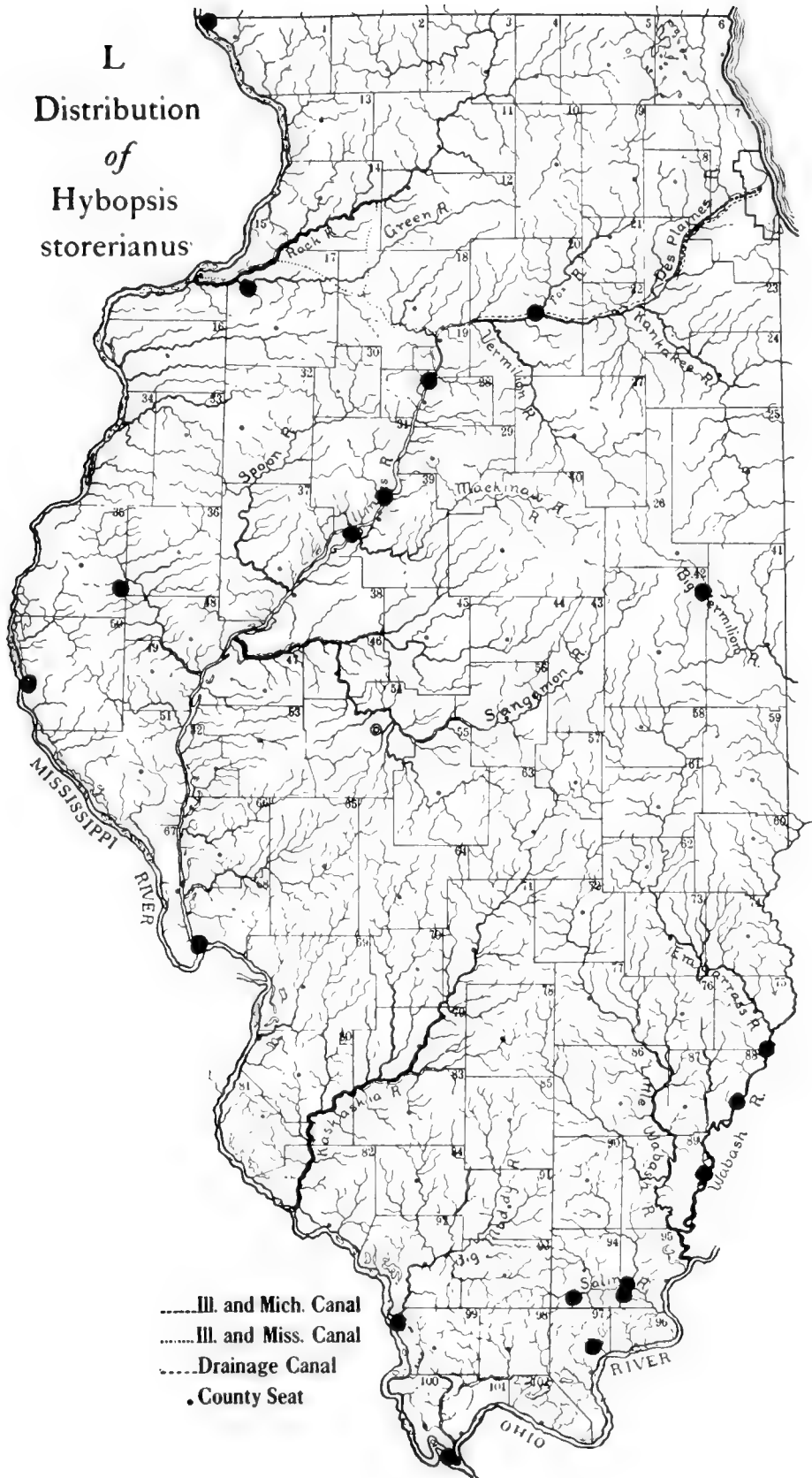
XLIX  
 Distribution  
 of  
*Hybopsis*  
 amblops



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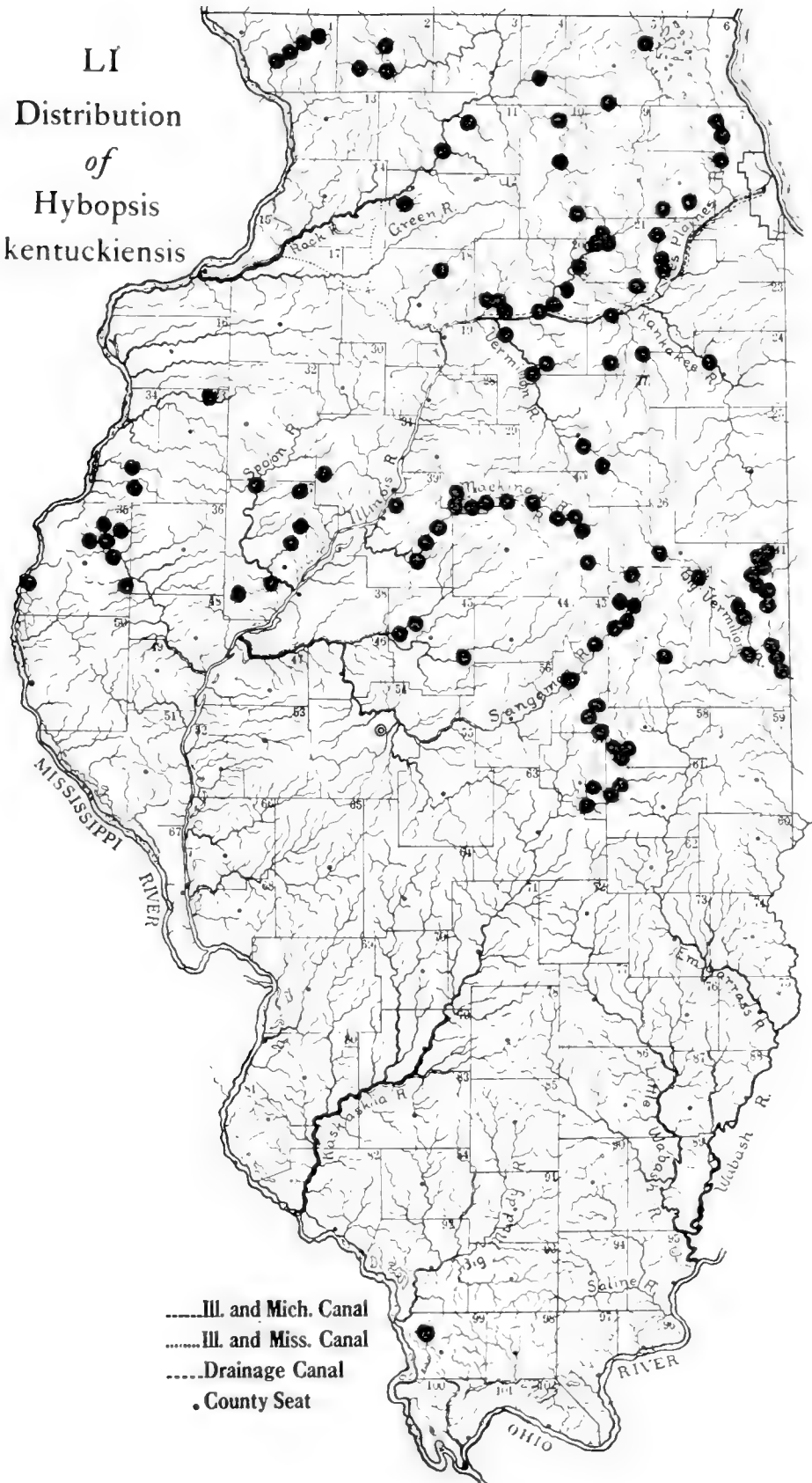


L  
 Distribution  
 of  
*Hybopsis*  
*storerianus*



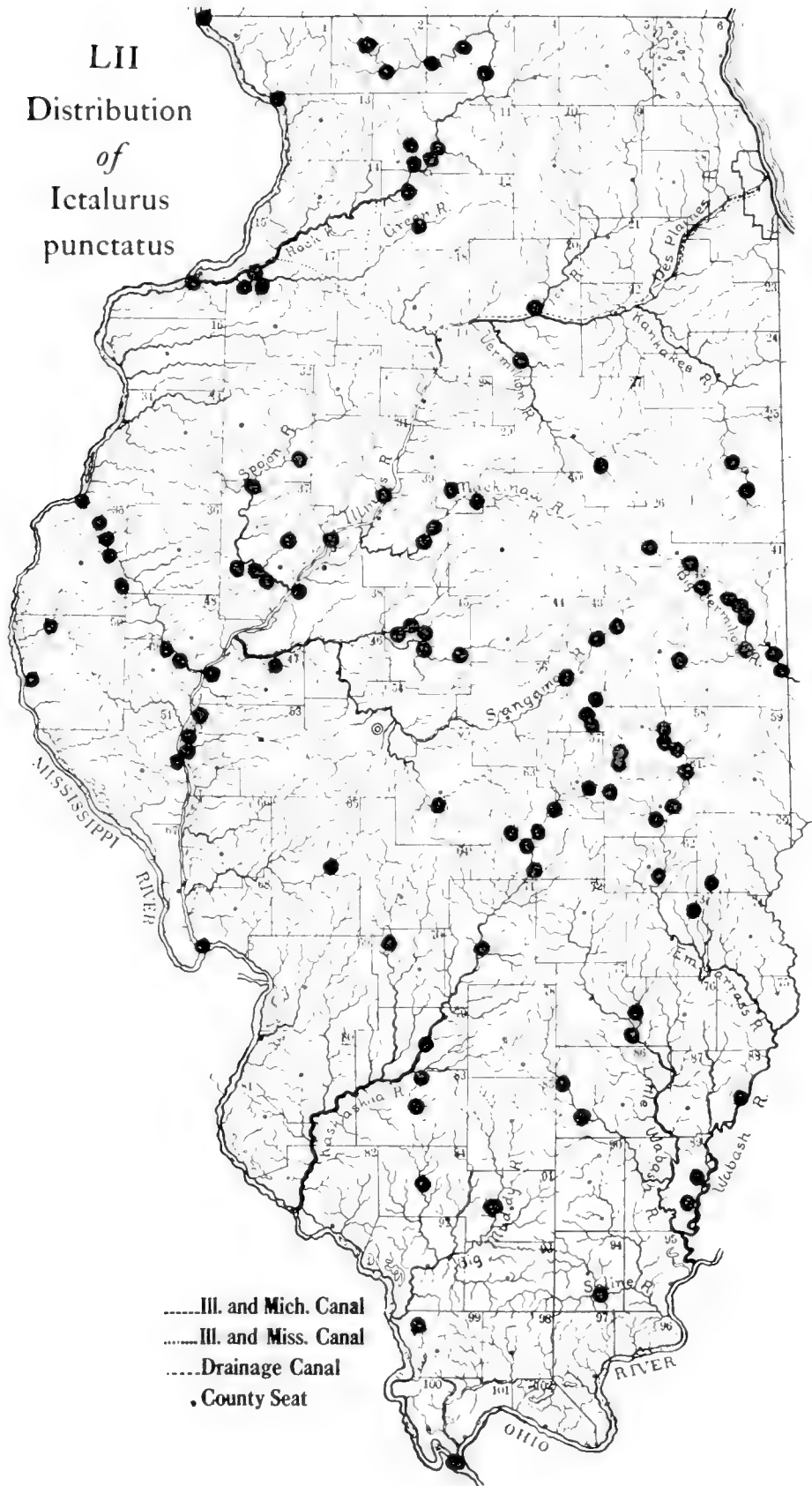
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LI  
 Distribution  
 of  
*Hybopsis*  
*kentuckiensis*



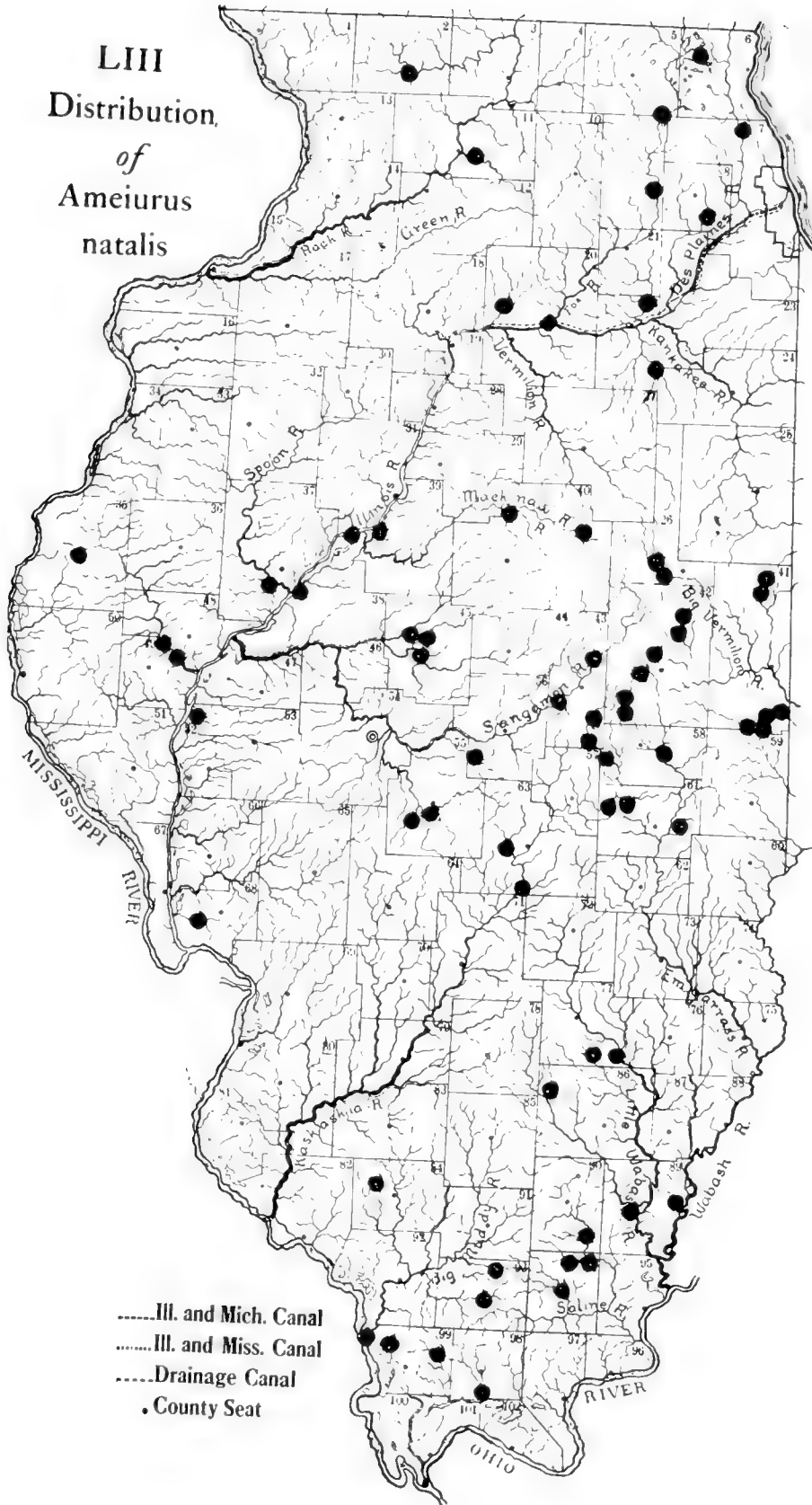
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LII  
 Distribution  
 of  
*Ictalurus punctatus*



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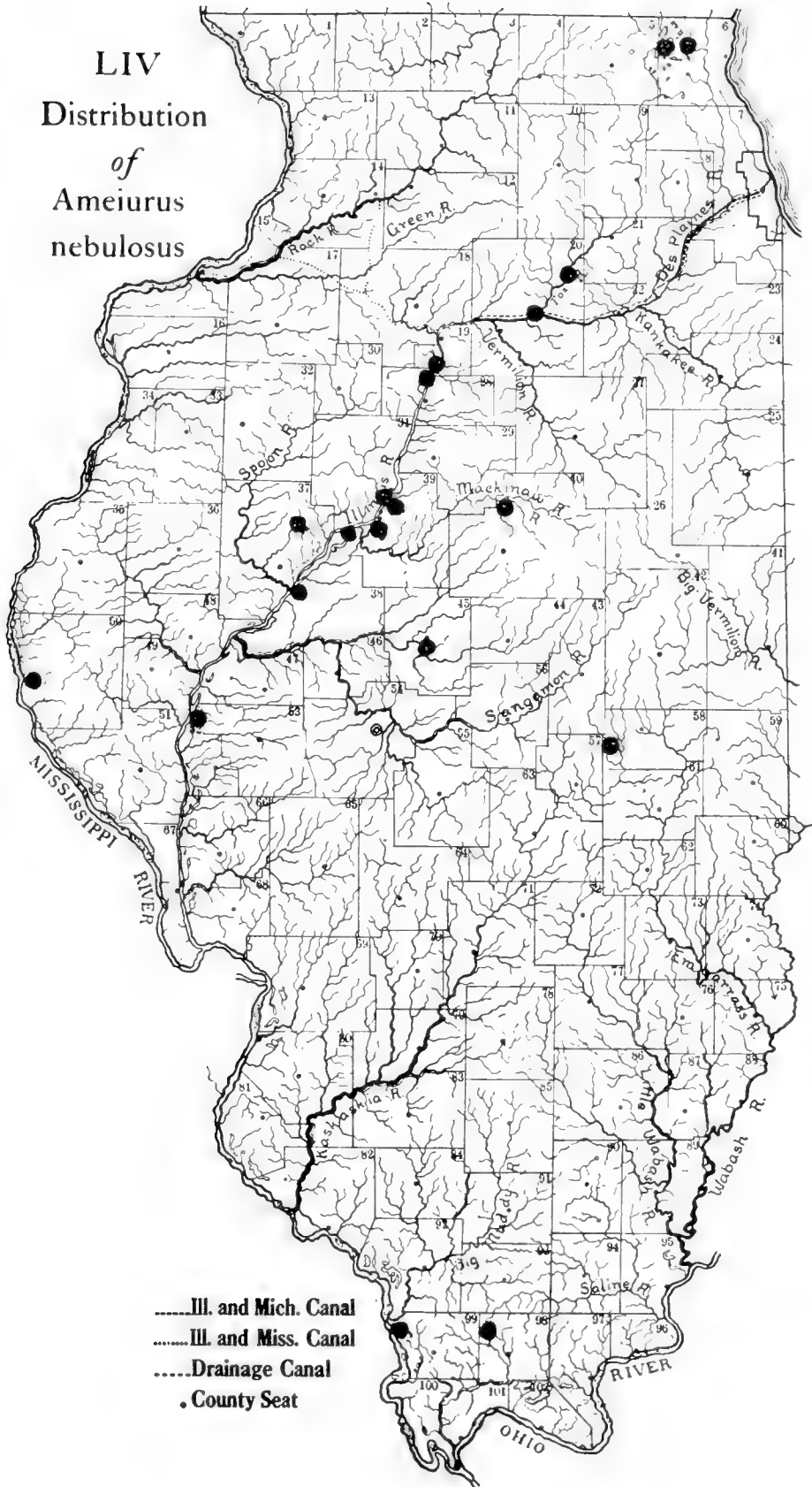
LIII  
 Distribution  
 of  
*Ameiurus*  
*natalis*



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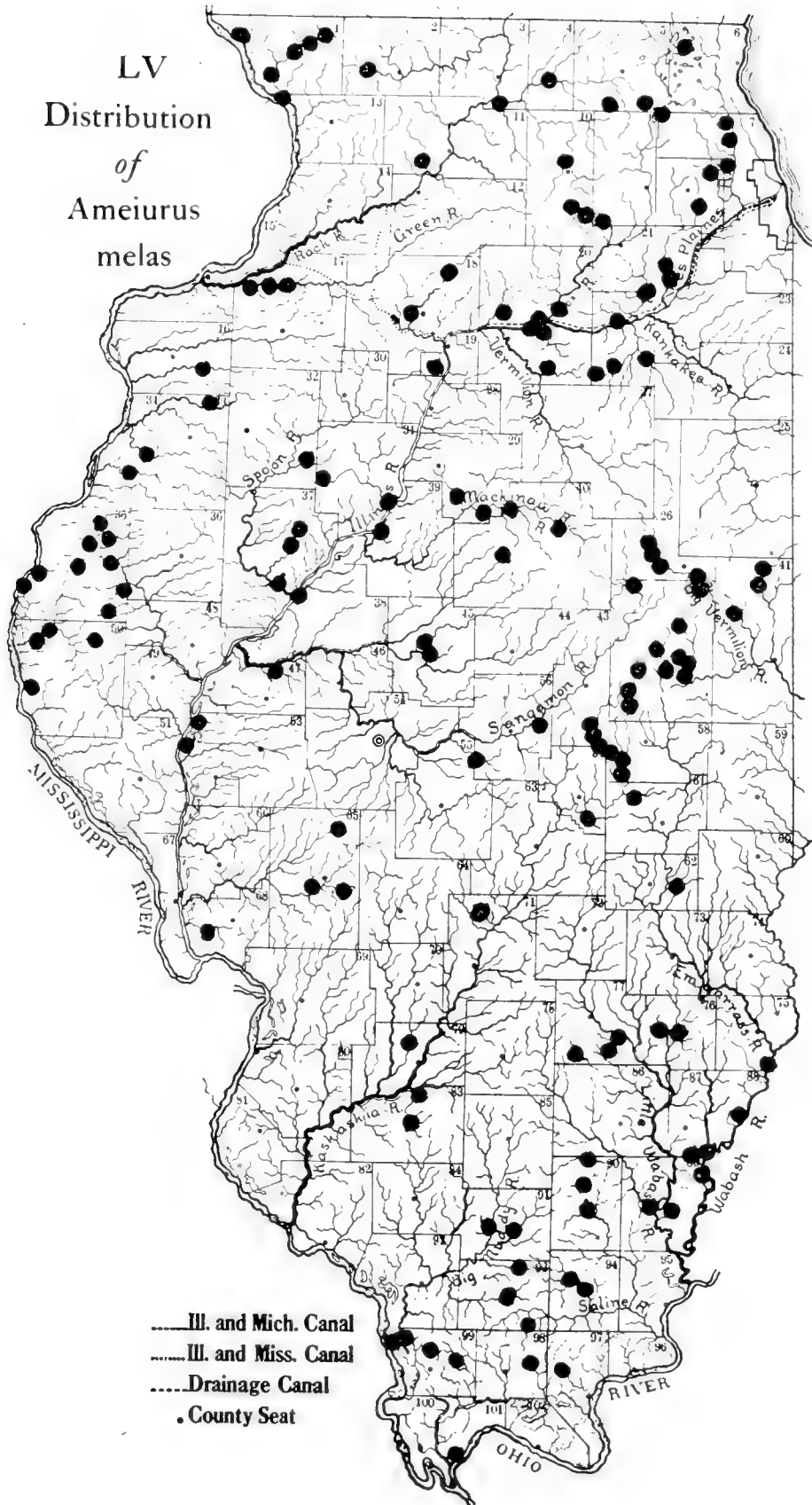


LIV  
 Distribution  
 of  
*Ameiurus  
 nebulosus*



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LV  
 Distribution  
 of  
*Ameiurus  
 melas*



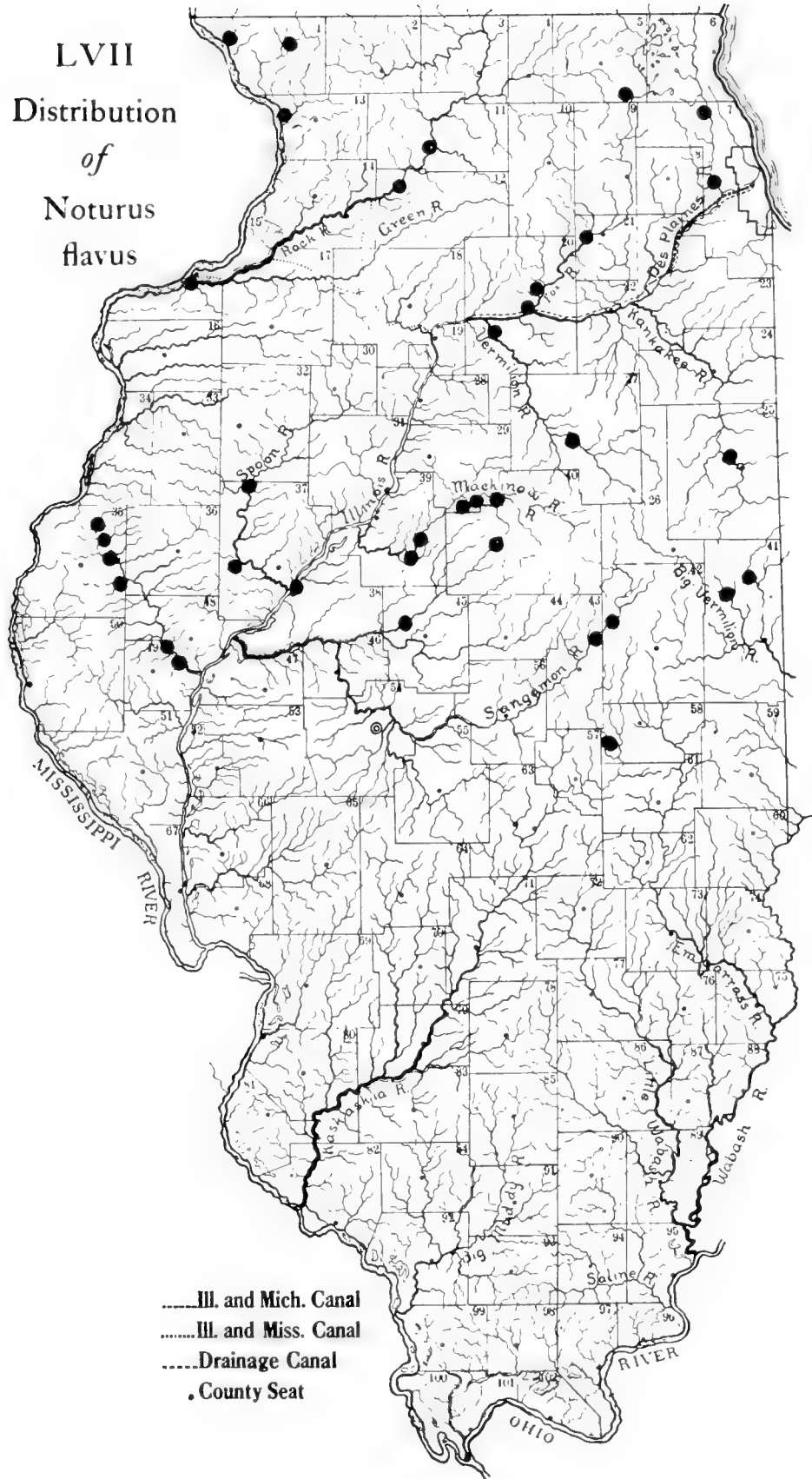
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LVI  
 Distribution  
 of  
*Leptops  
 olivaris*



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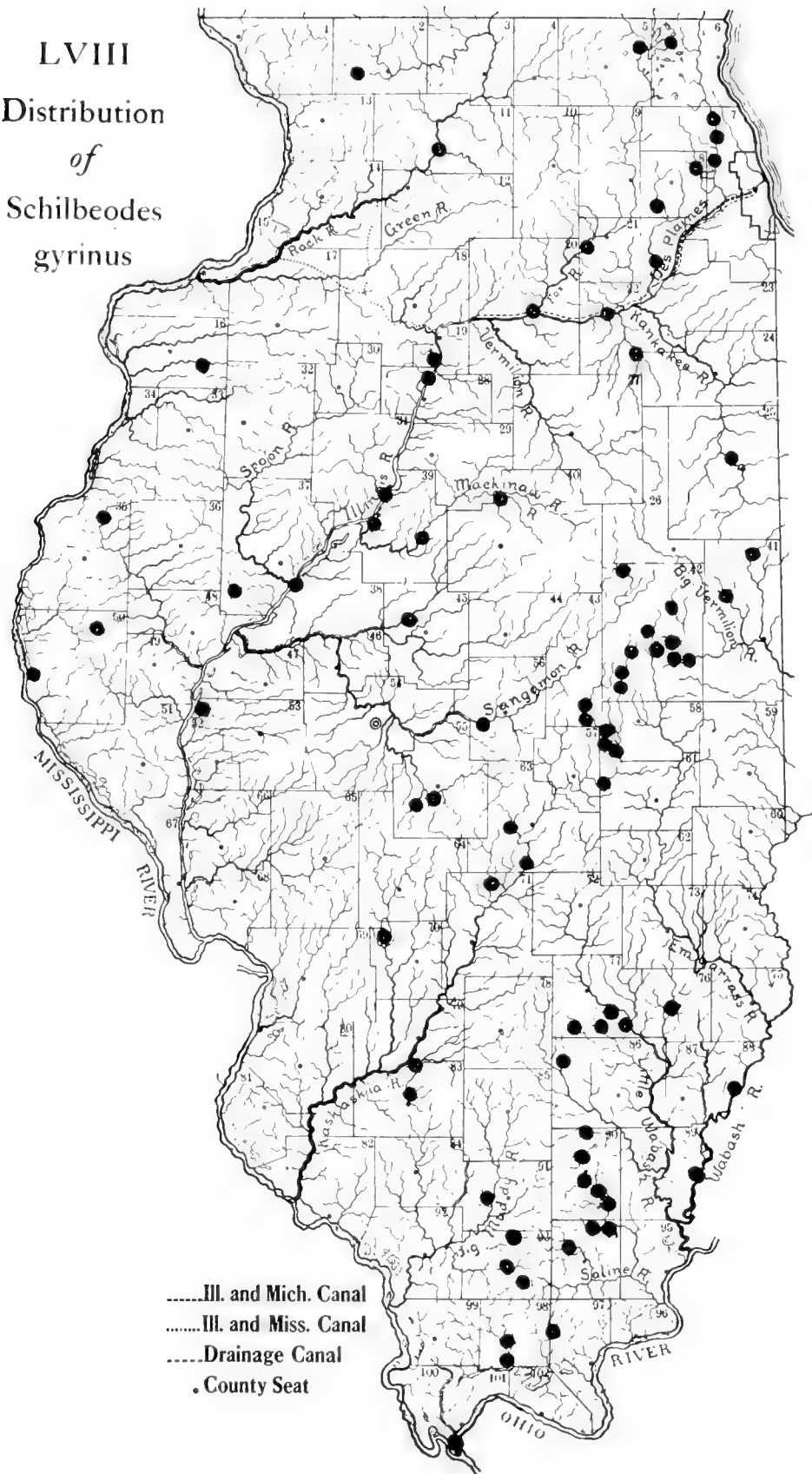
LVII  
 Distribution  
 of  
*Noturus*  
*flavus*



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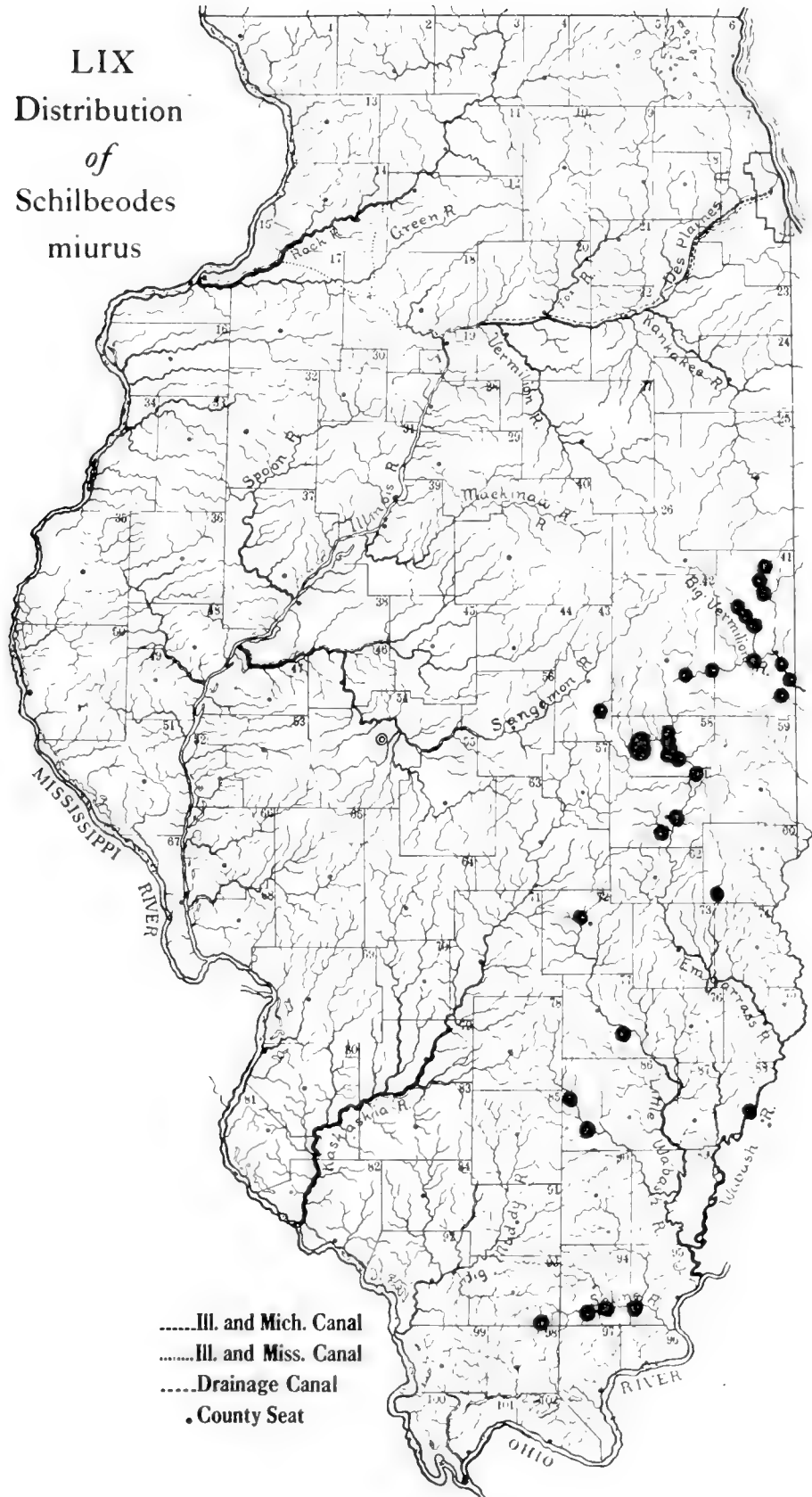


LVIII  
 Distribution  
 of  
*Schilbeodes*  
*gyrinus*



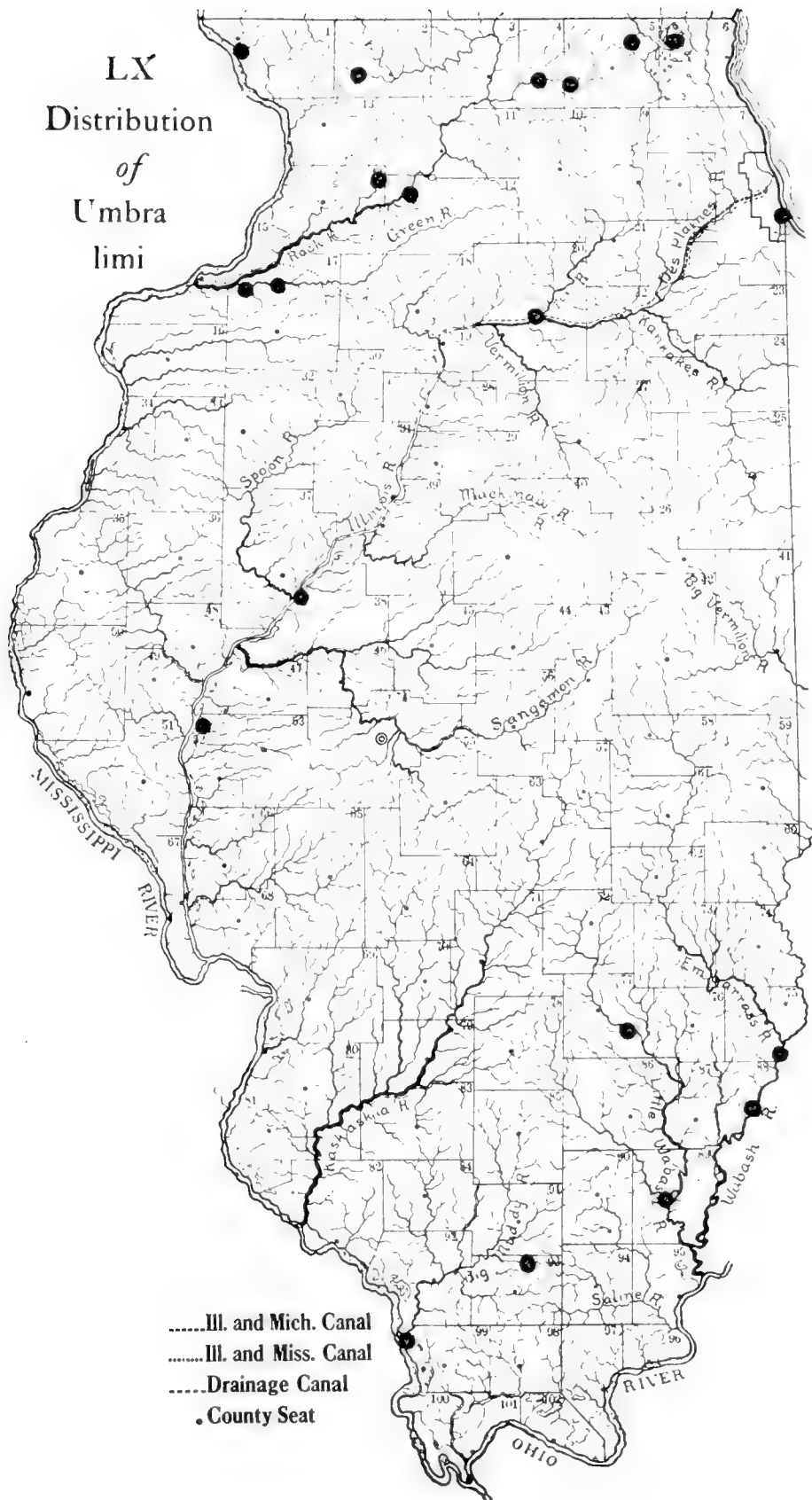
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LIX  
 Distribution  
 of  
*Schilbeodes*  
*miurus*



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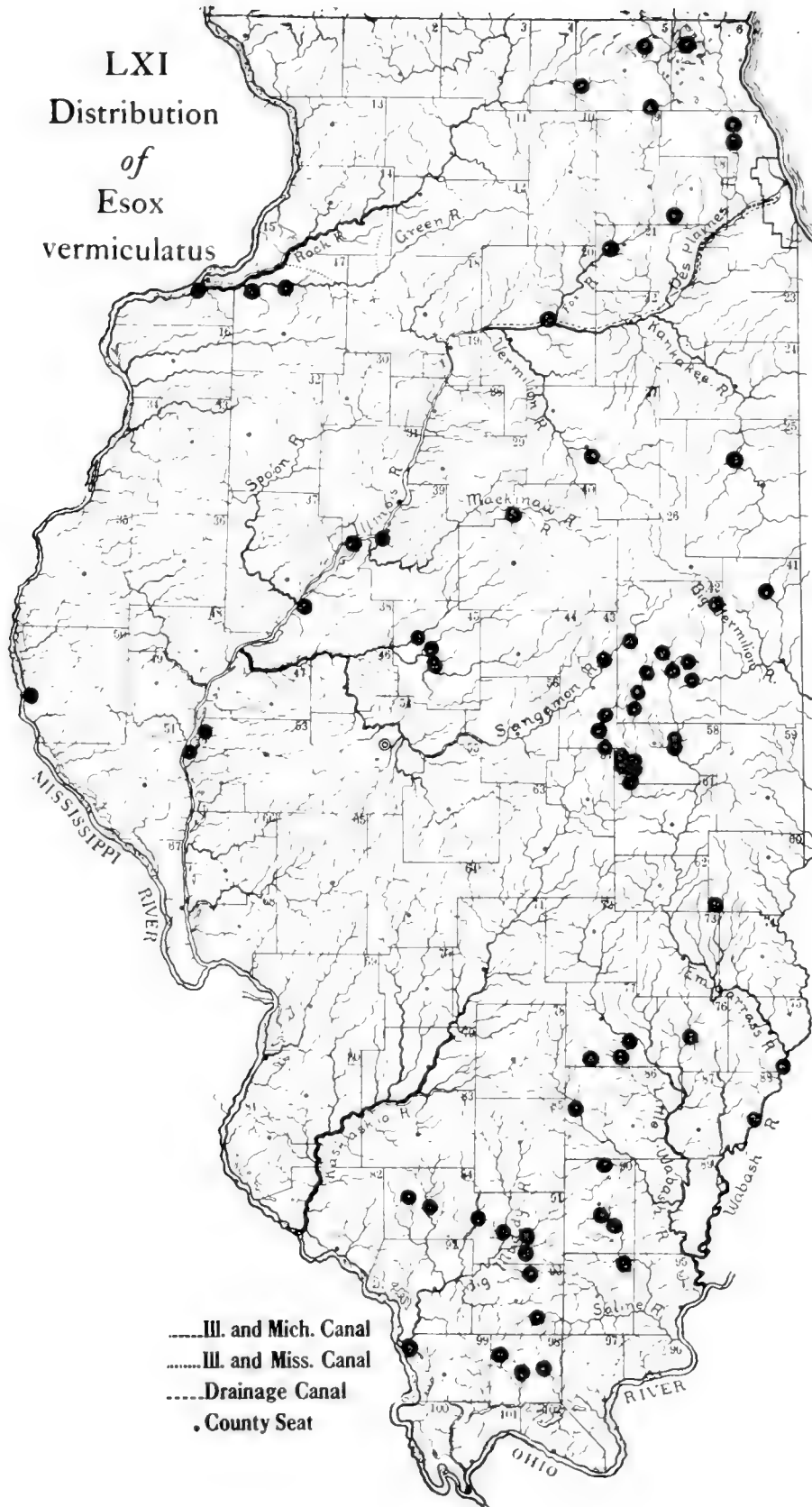
LX  
 Distribution  
 of  
*Umbra*  
 limi



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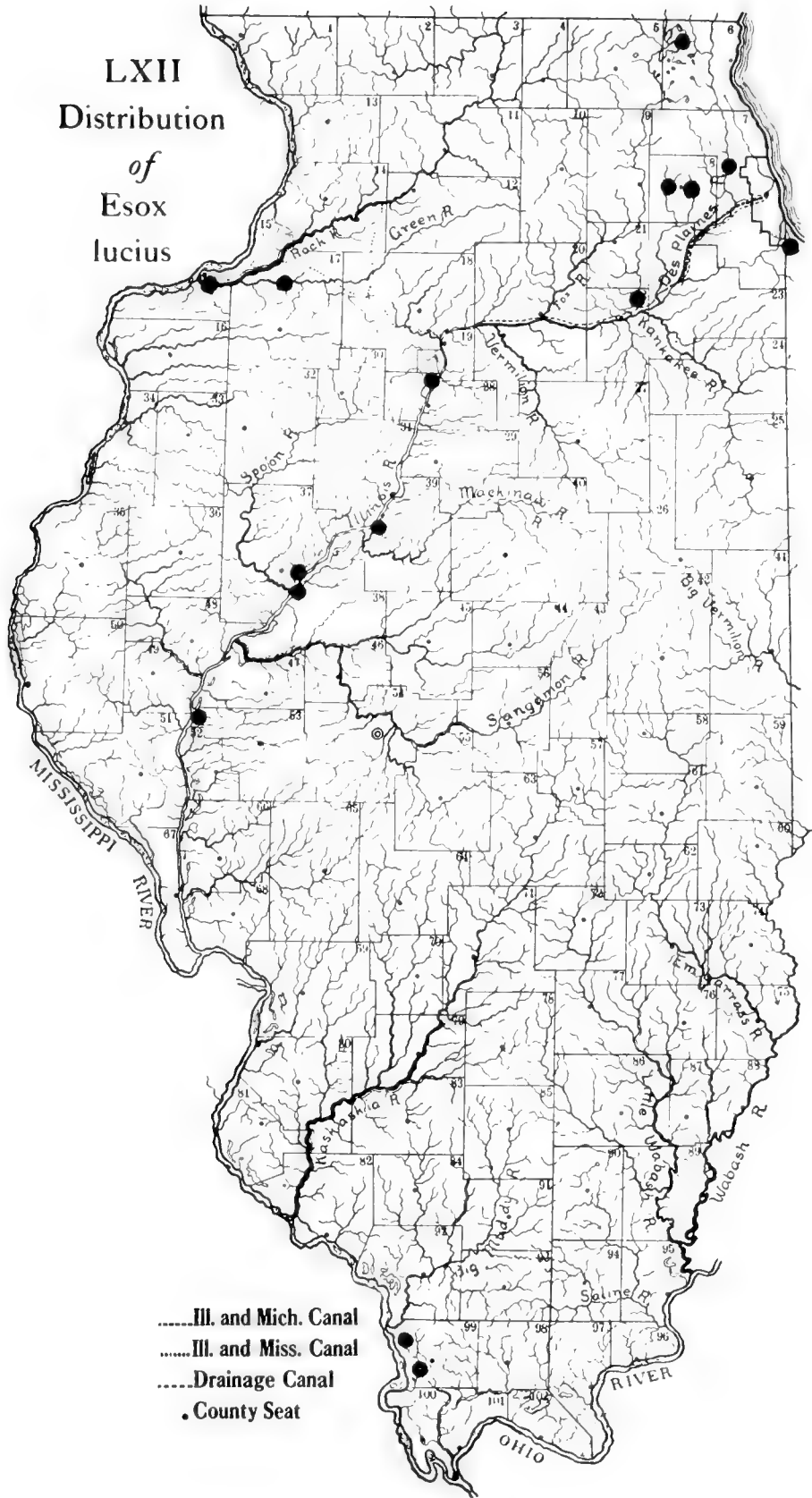
LXI  
 Distribution  
 of  
*Esox*  
*vermiculatus*



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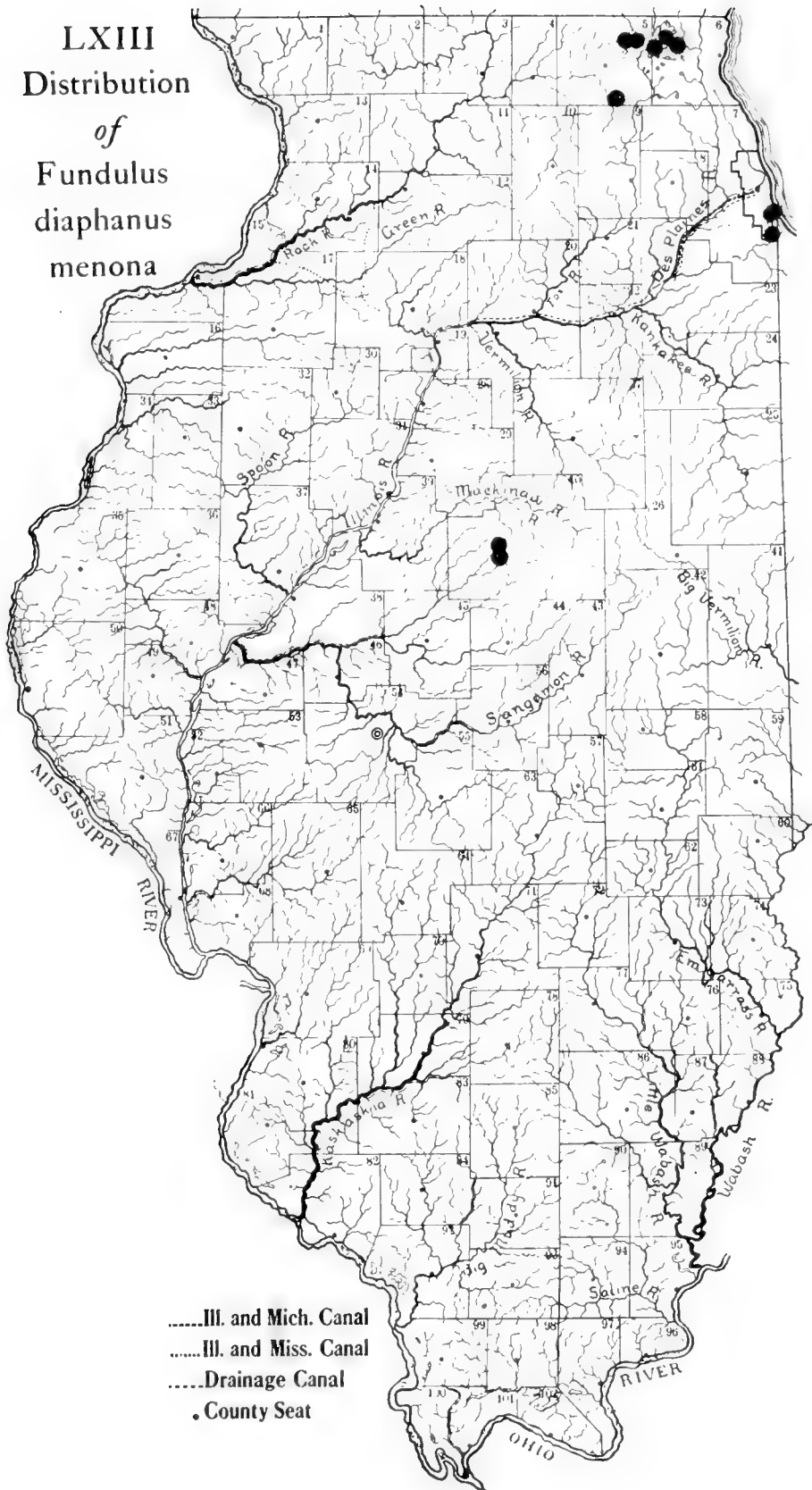


LXII  
 Distribution  
 of  
*Esox*  
*lucius*



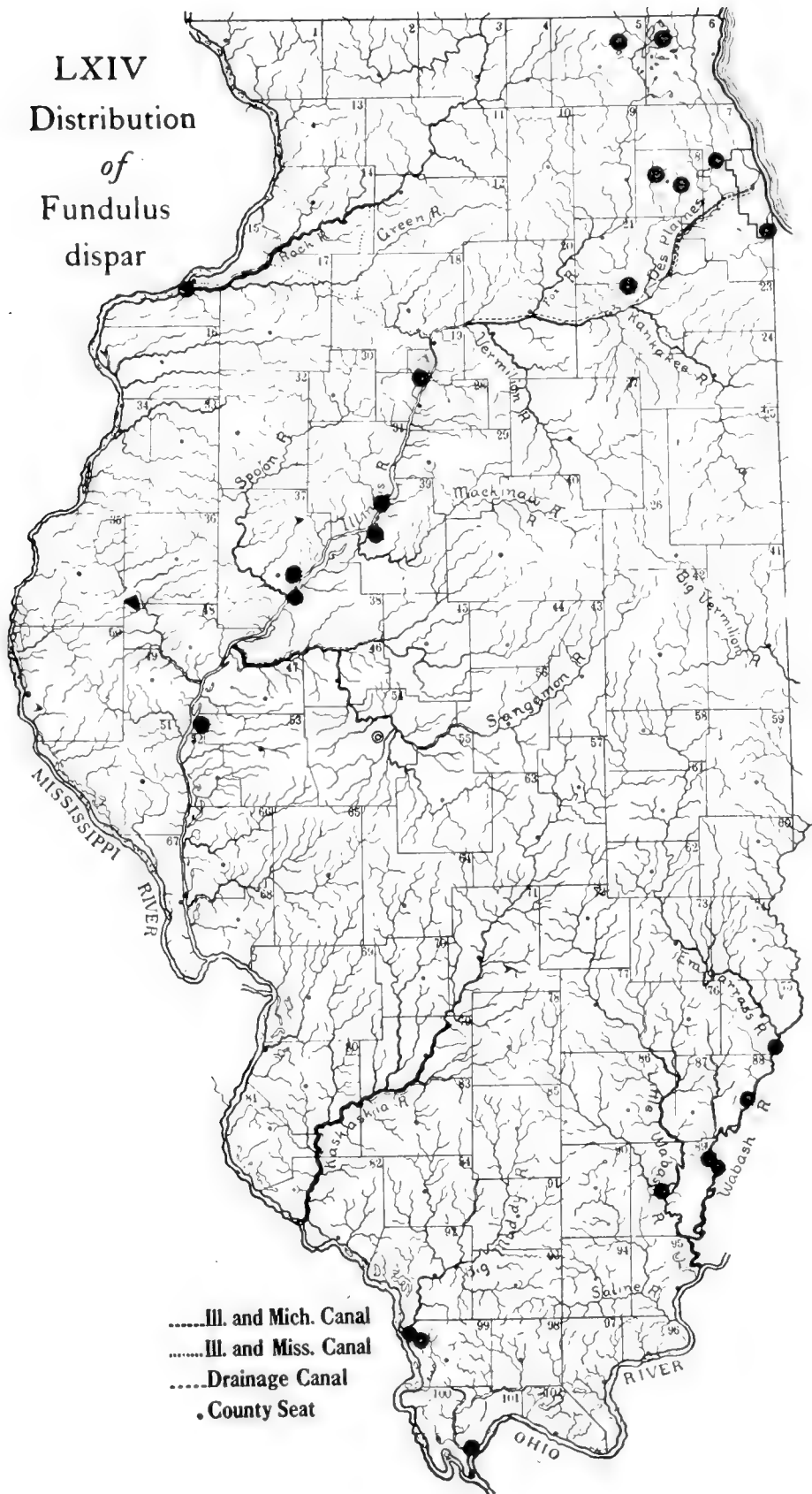
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LXIII  
 Distribution  
 of  
*Fundulus  
 diaphanus  
 menona*



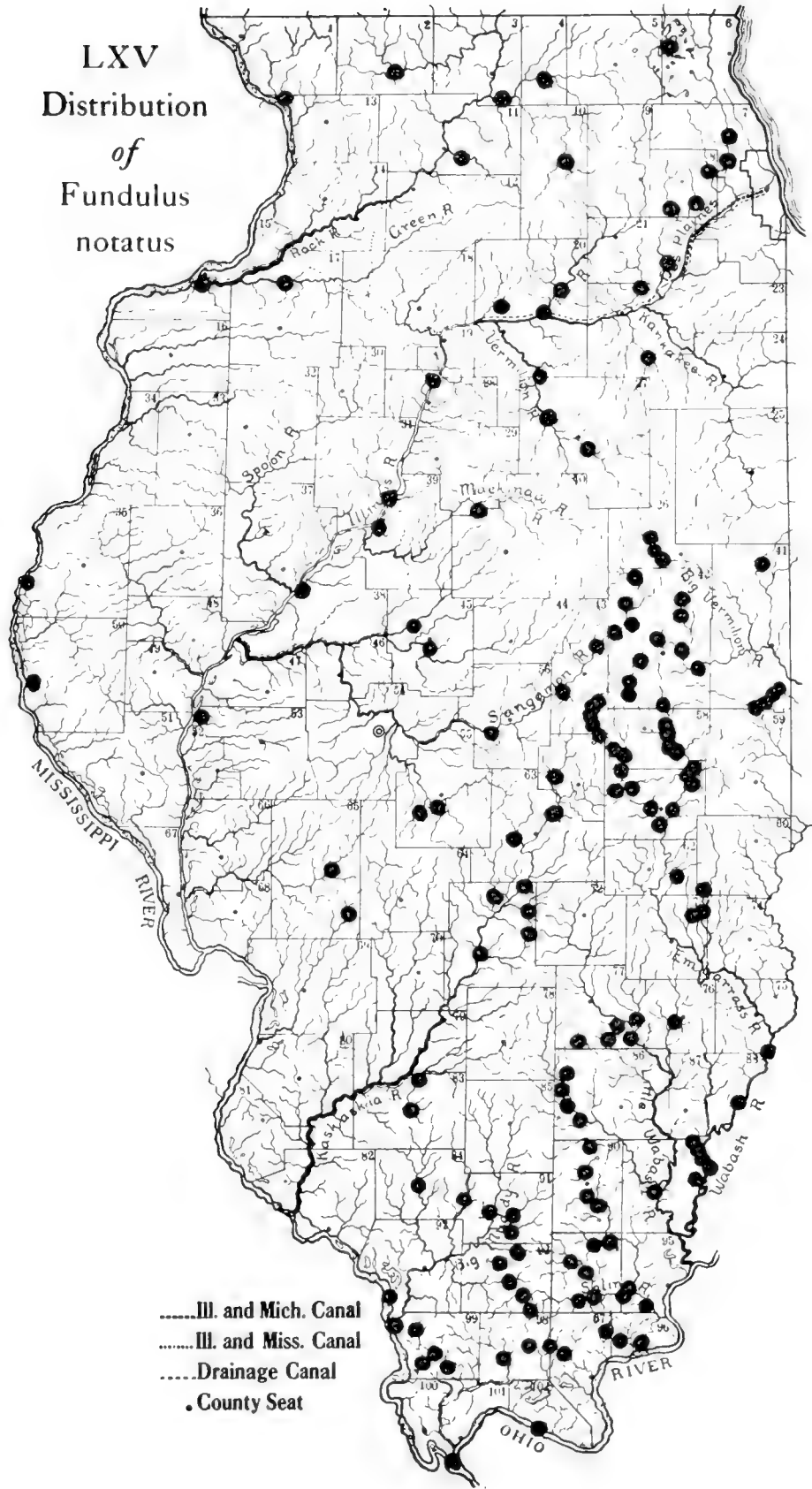
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LXIV  
 Distribution  
 of  
*Fundulus*  
*dispar*



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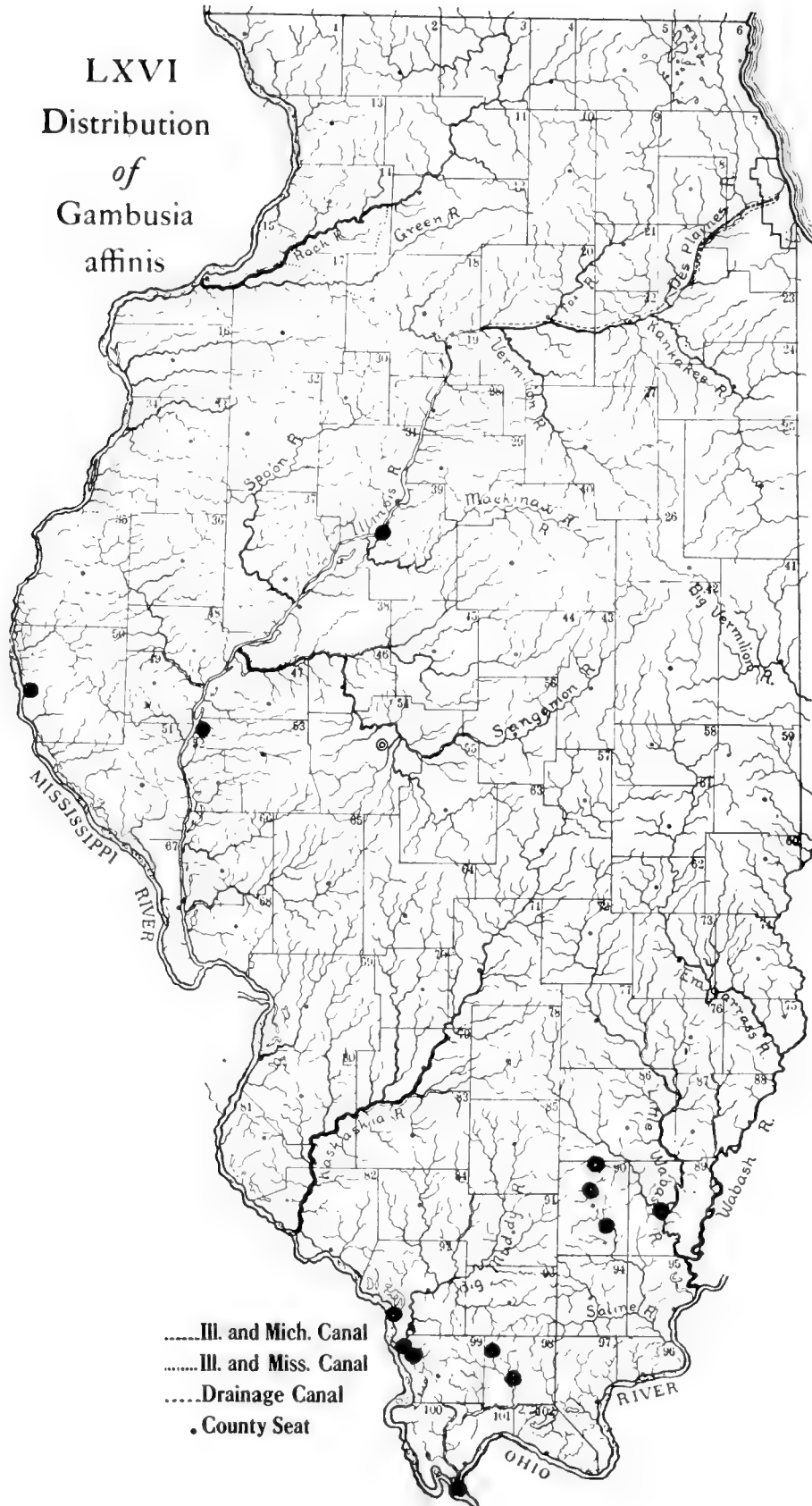
LXV  
 Distribution  
 of  
*Fundulus*  
*notatus*



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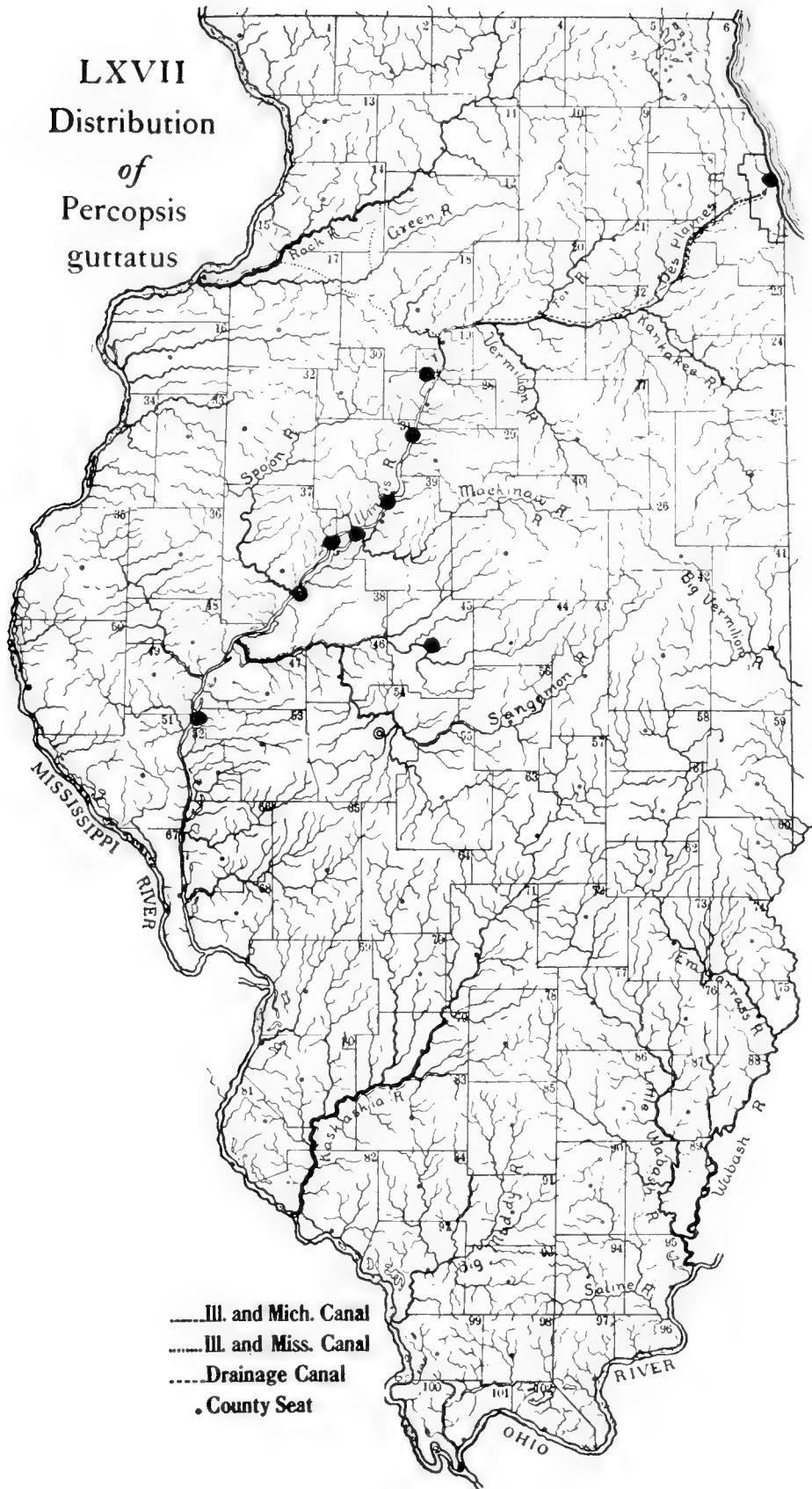


LXVI  
 Distribution  
 of  
*Gambusia*  
 affinis



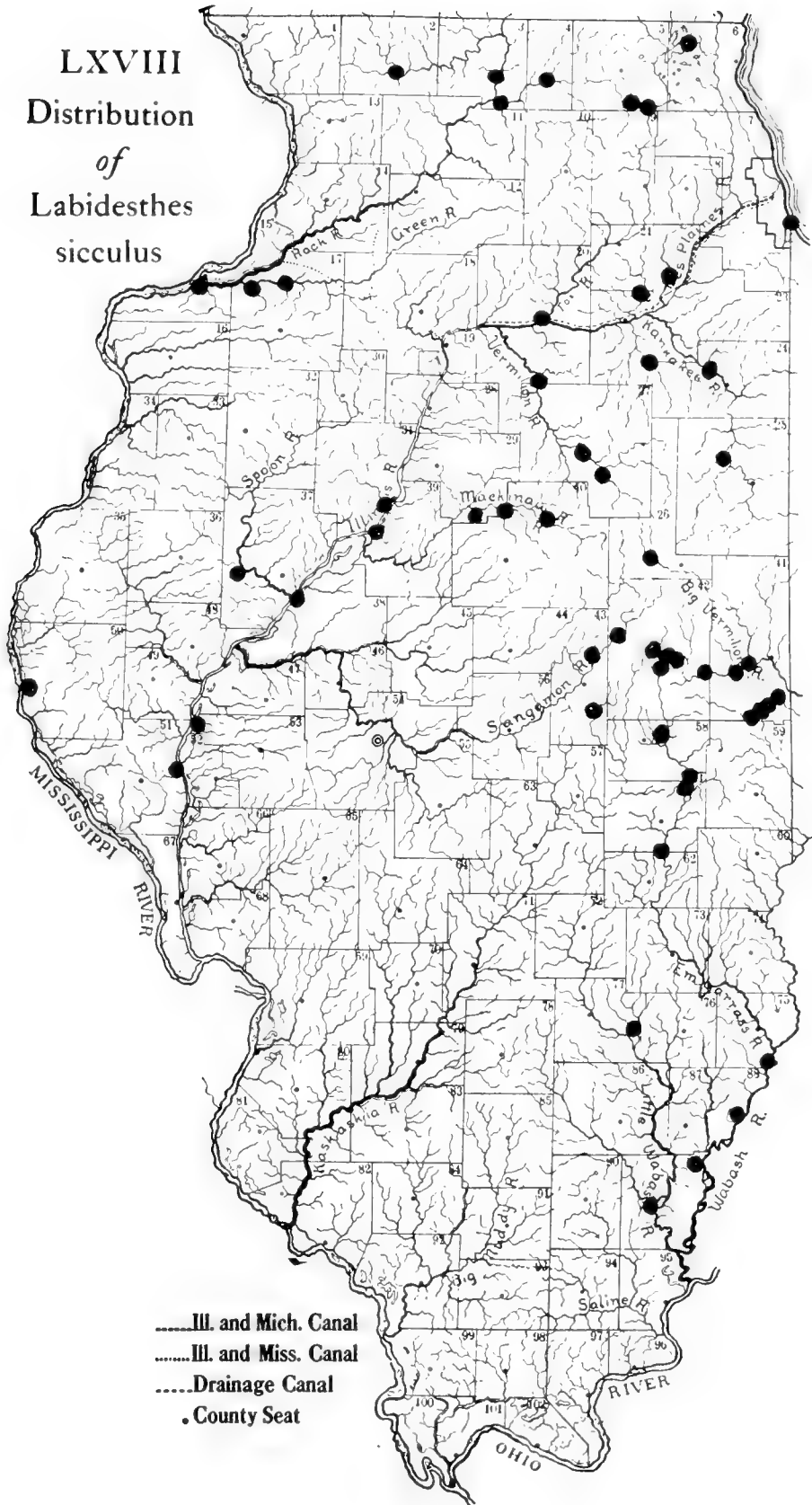
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LXVII  
 Distribution  
 of  
*Percopsis  
 guttatus*



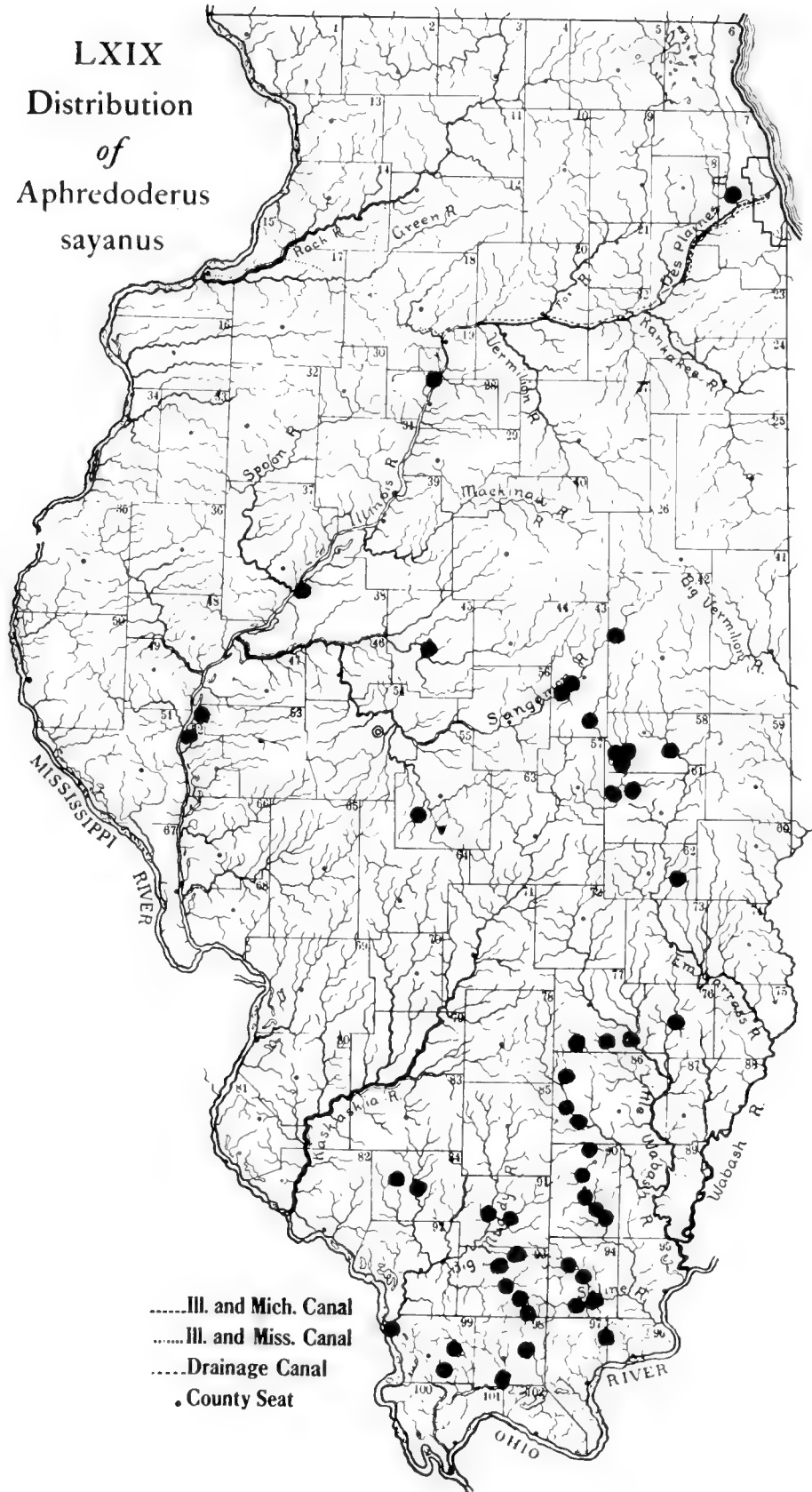
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LXVIII  
 Distribution  
 of  
*Labidesthes*  
*sicculus*



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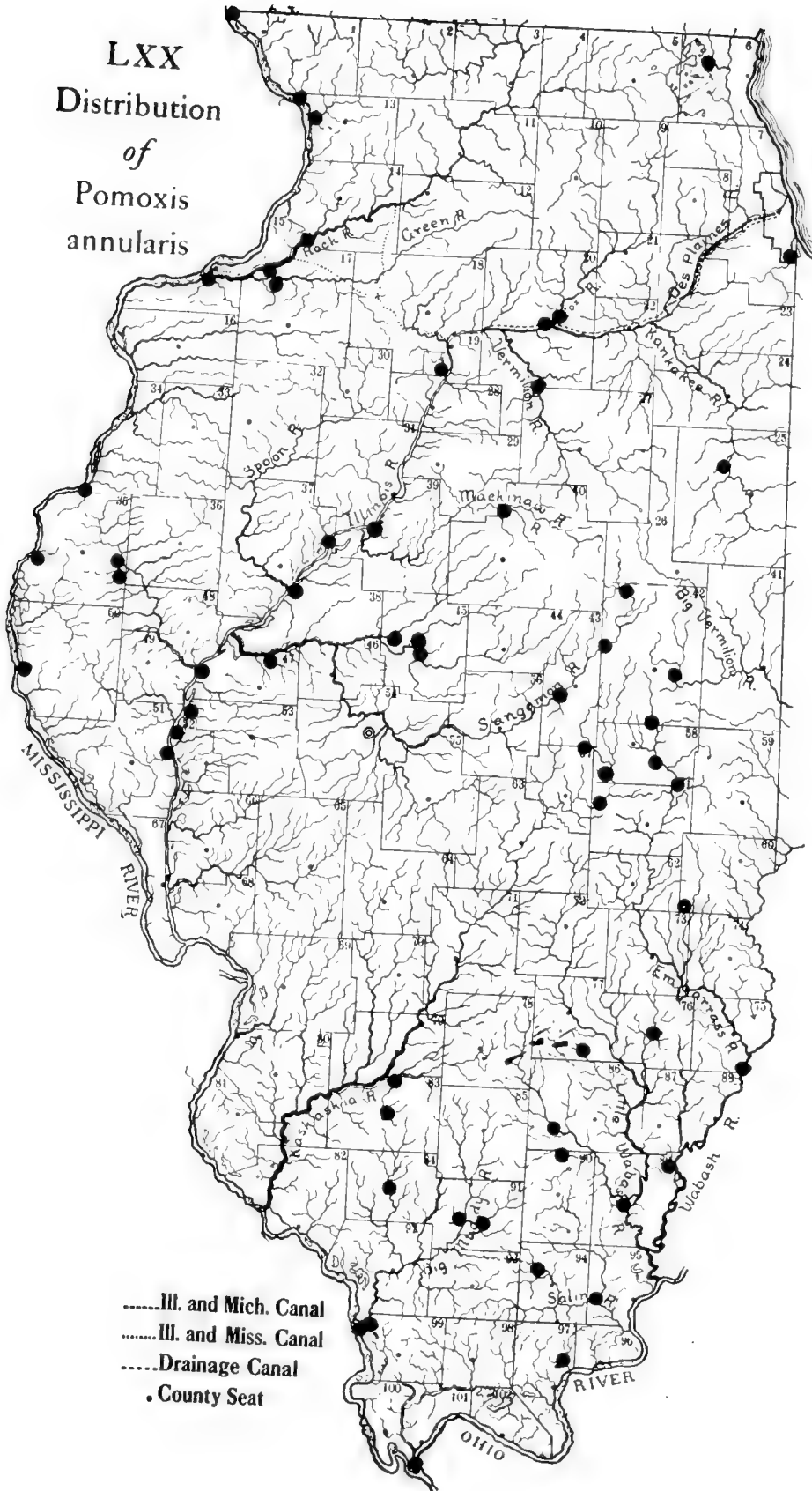
LXIX  
 Distribution  
 of  
*Aphredoderus*  
*sayanus*



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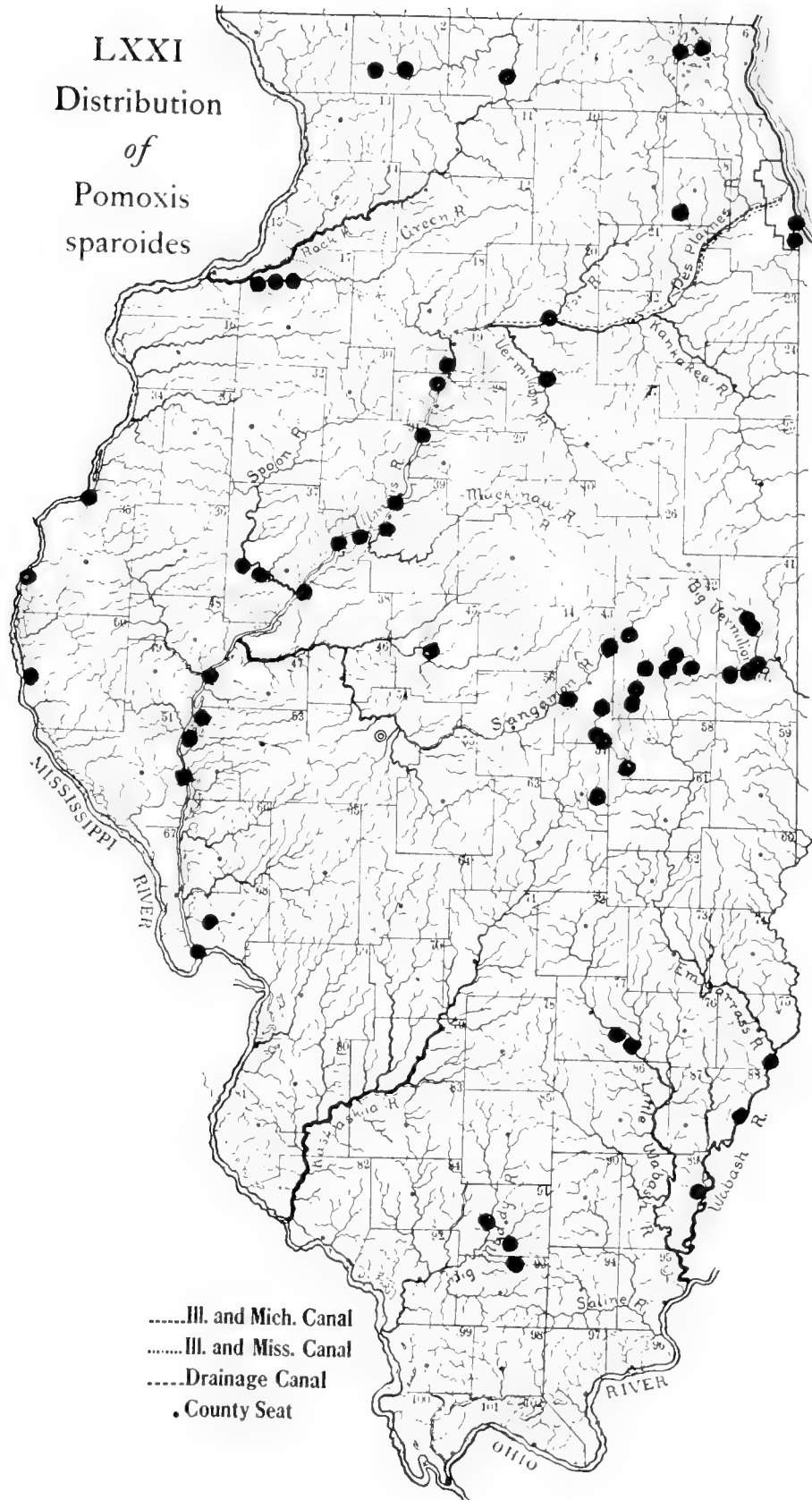


LXX  
 Distribution  
 of  
*Pomoxis*  
*annularis*



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LXXI  
 Distribution  
 of  
*Pomoxis  
 sparoides*



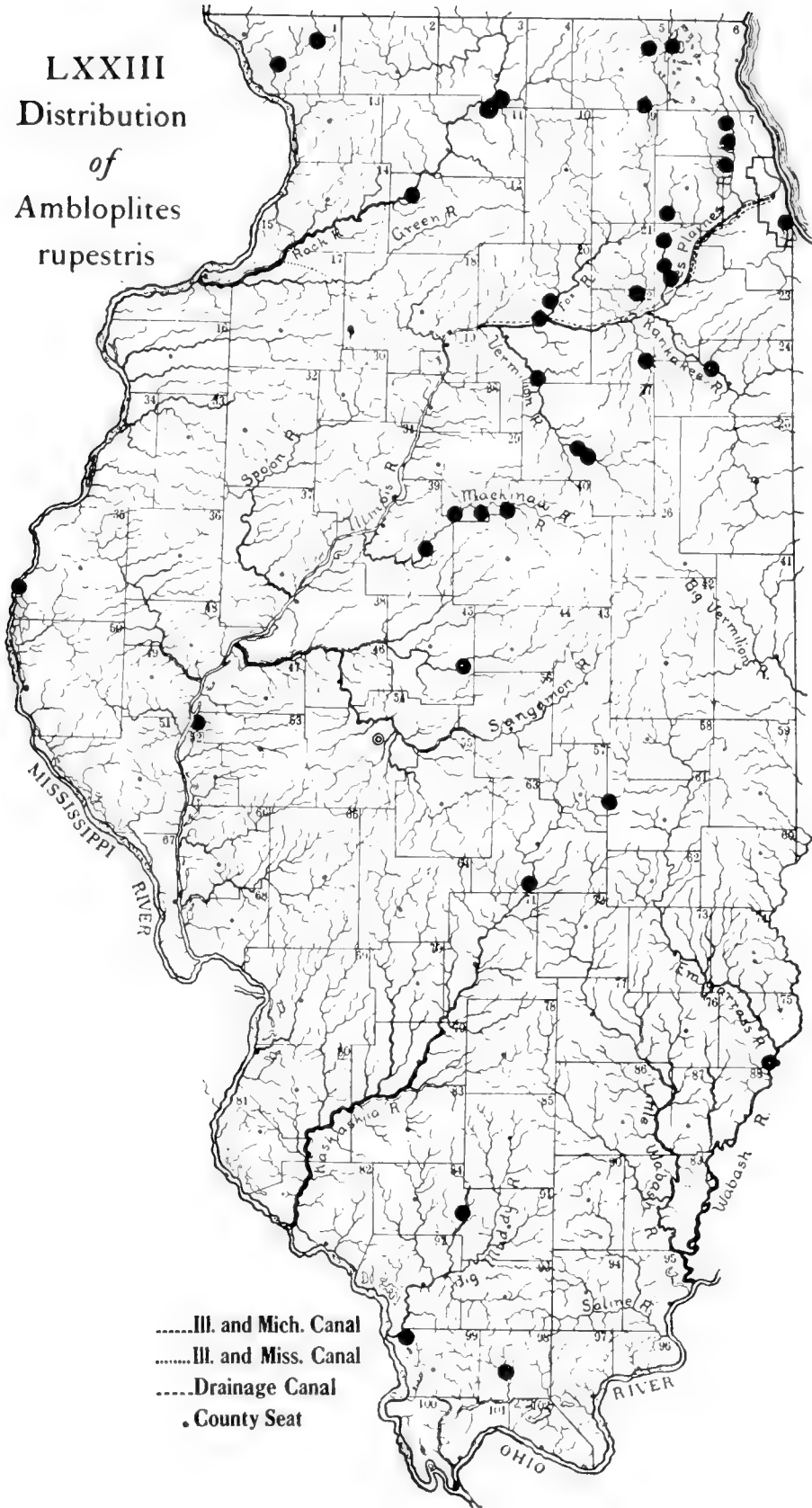
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LXXII  
 Distribution  
 of  
*Centrarchus  
 macropterus*



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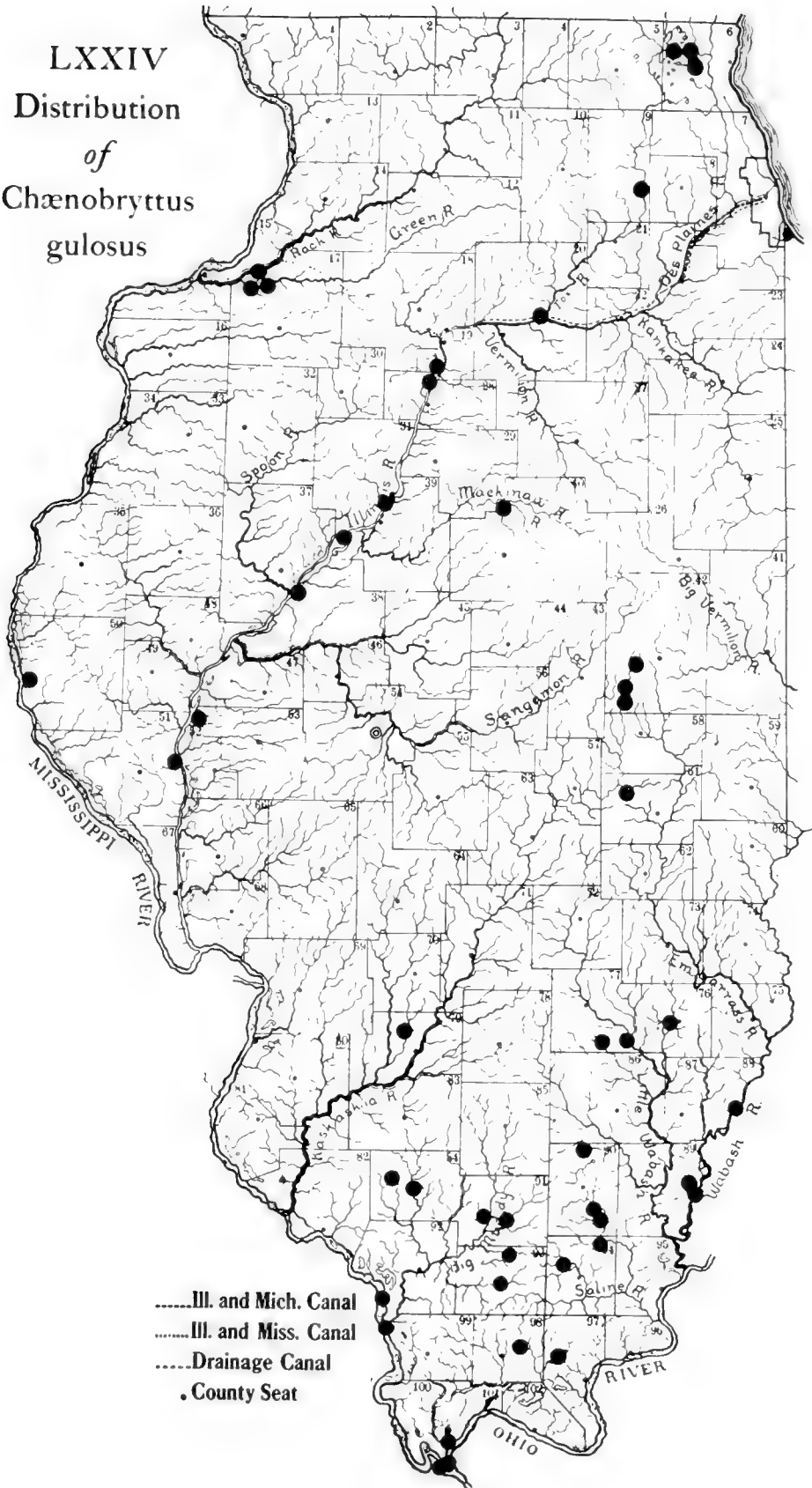
LXXIII  
 Distribution  
 of  
*Ambloplites*  
*rupestris*



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LXXIV  
 Distribution  
 of  
*Chænobryttus*  
*gulosus*



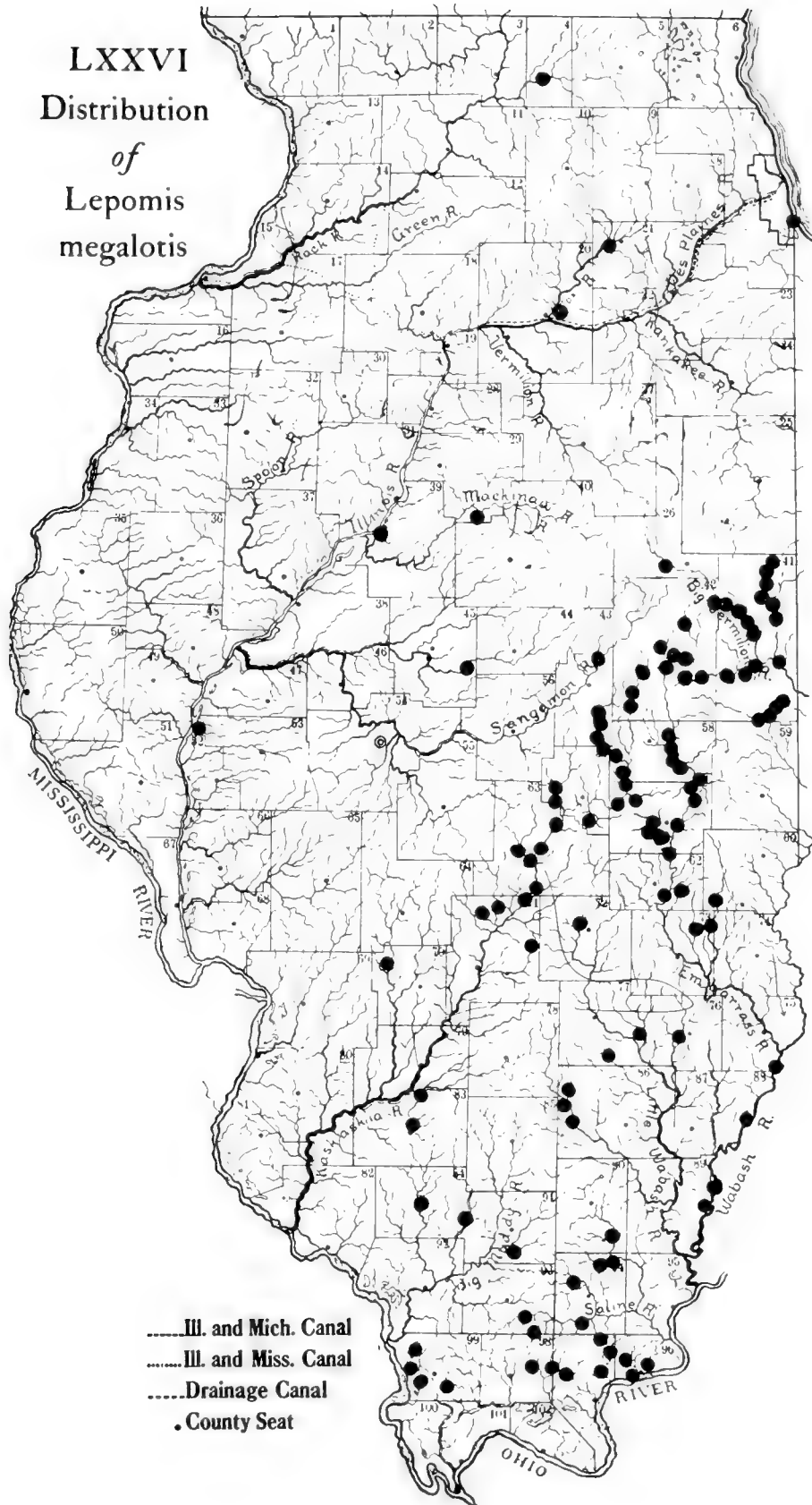
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LXXV  
 Distribution  
 of  
*Lepomis  
 miniatus*



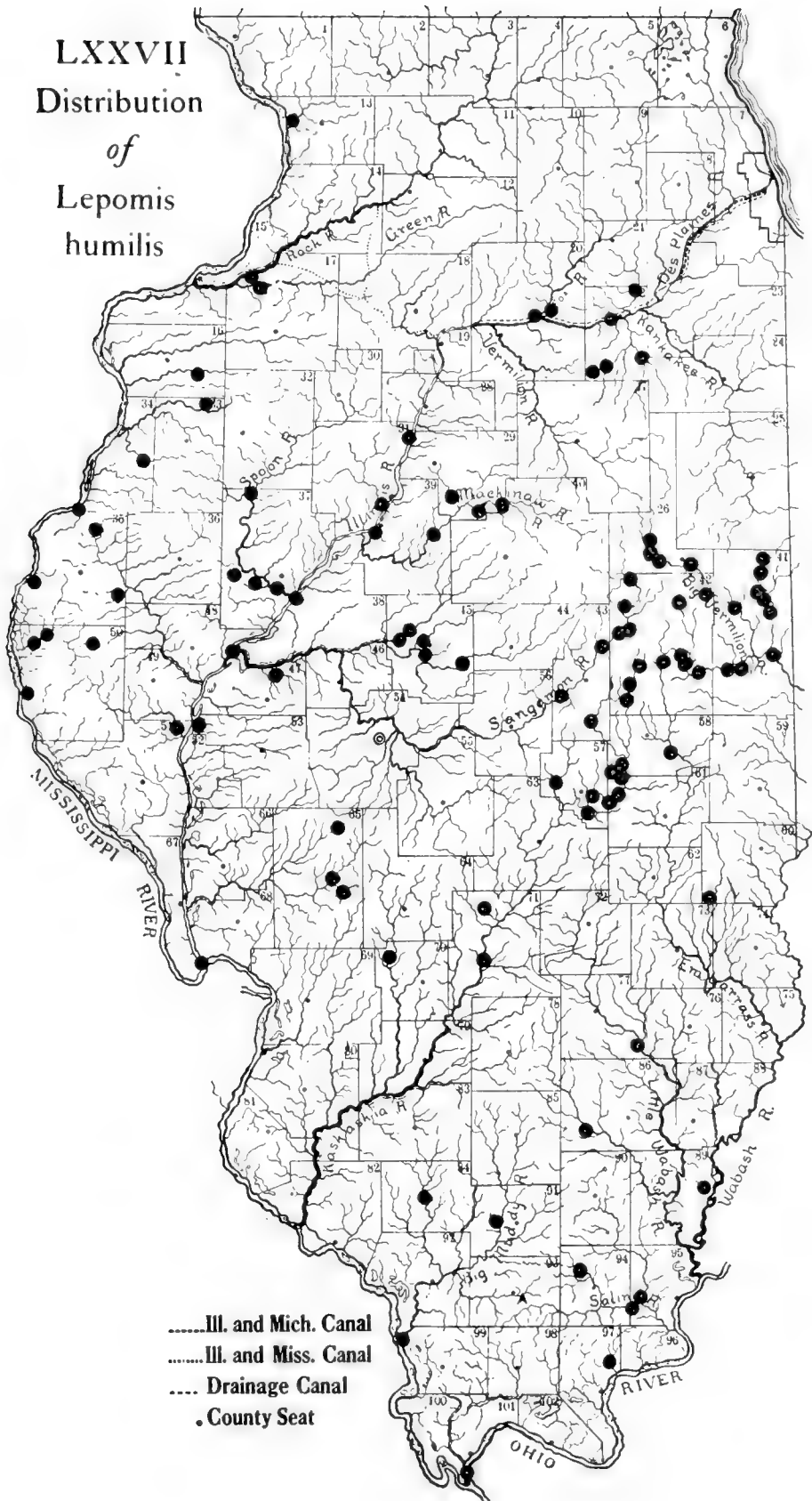
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LXXVI  
 Distribution  
 of  
*Lepomis megalotis*



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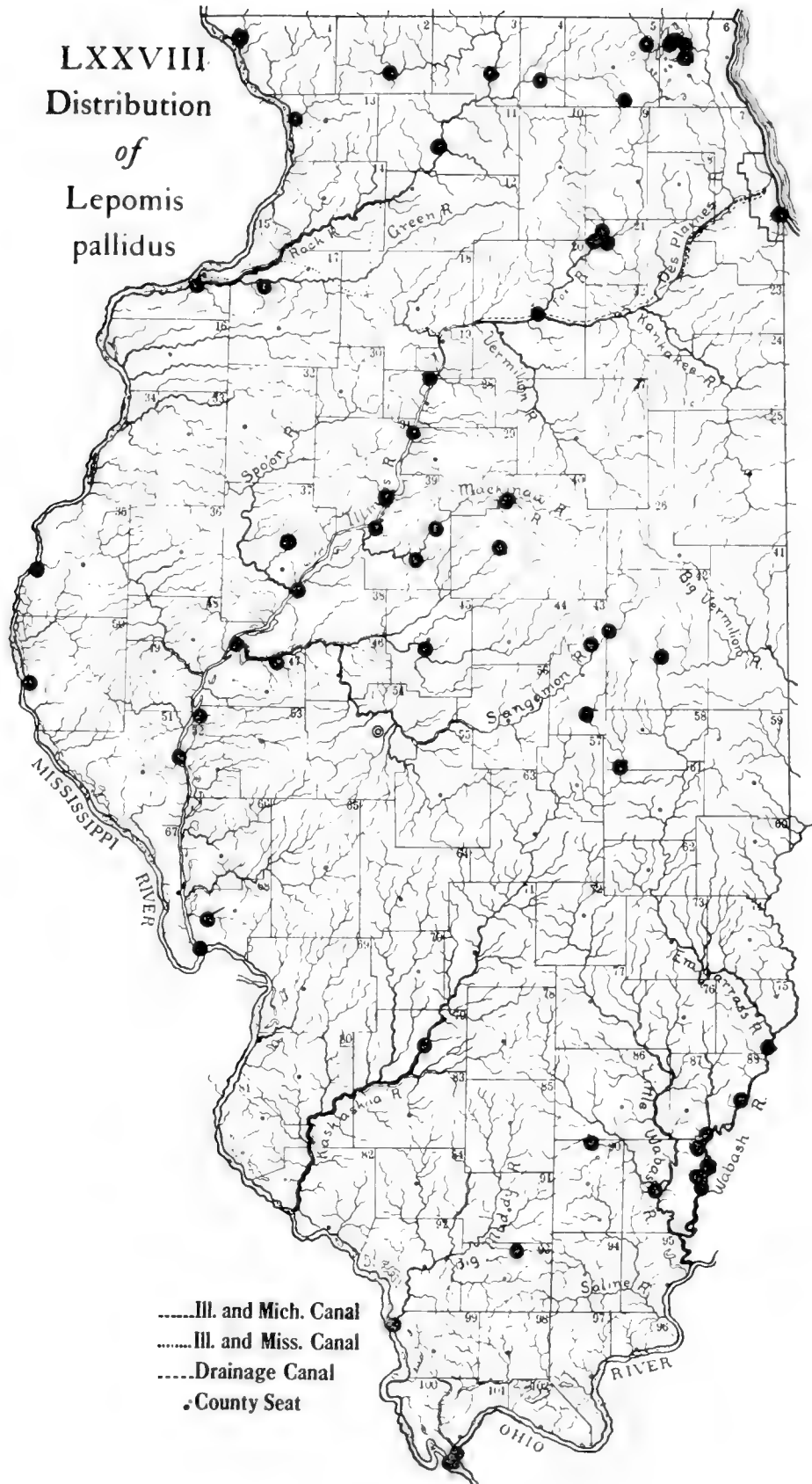
LXXVII  
 Distribution  
 of  
*Lepomis humilis*



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LXXVIII  
 Distribution  
 of  
*Lepomis pallidus*



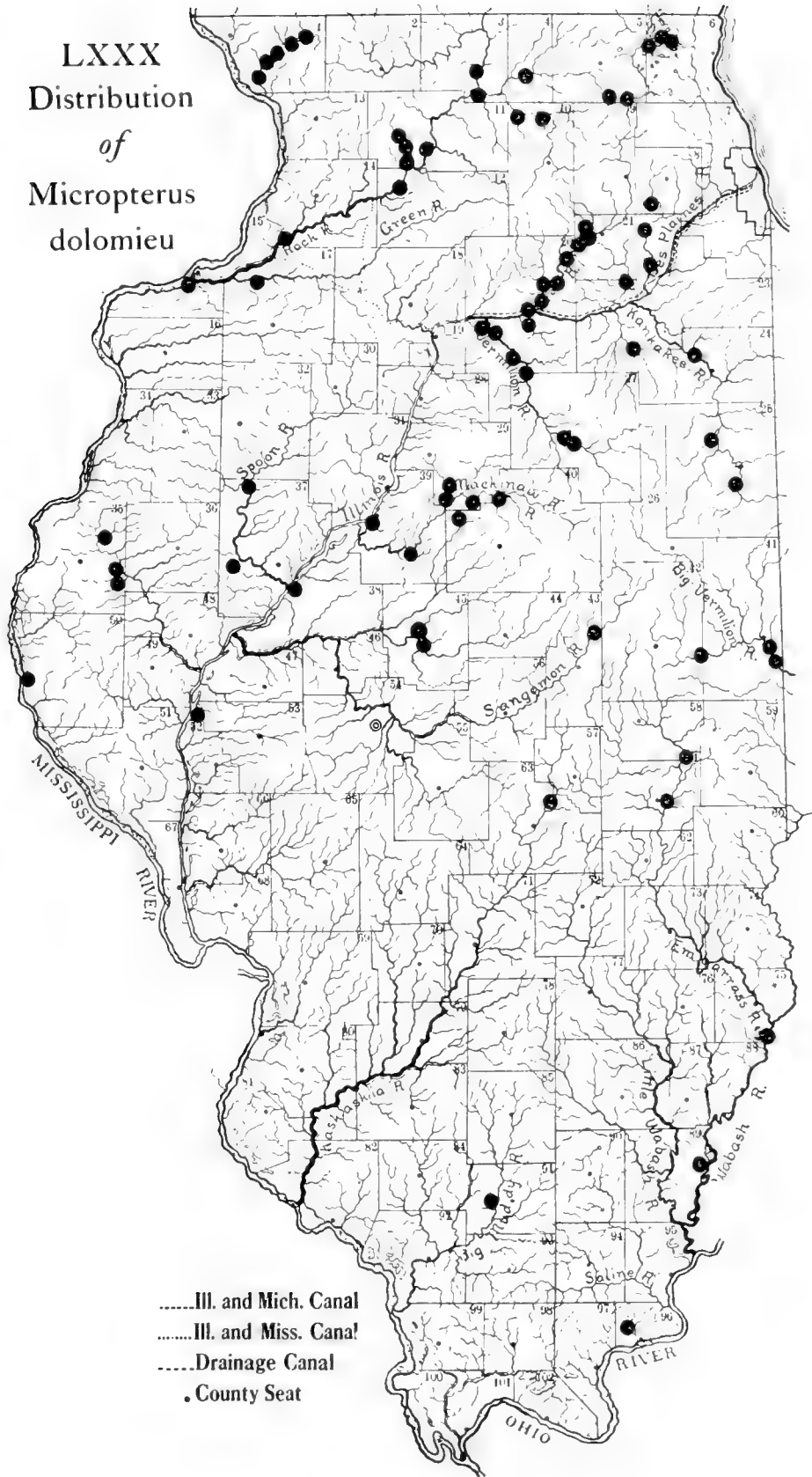
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LXXIX.  
 Distribution  
 of  
*Eupomotis*  
*gibbosus*



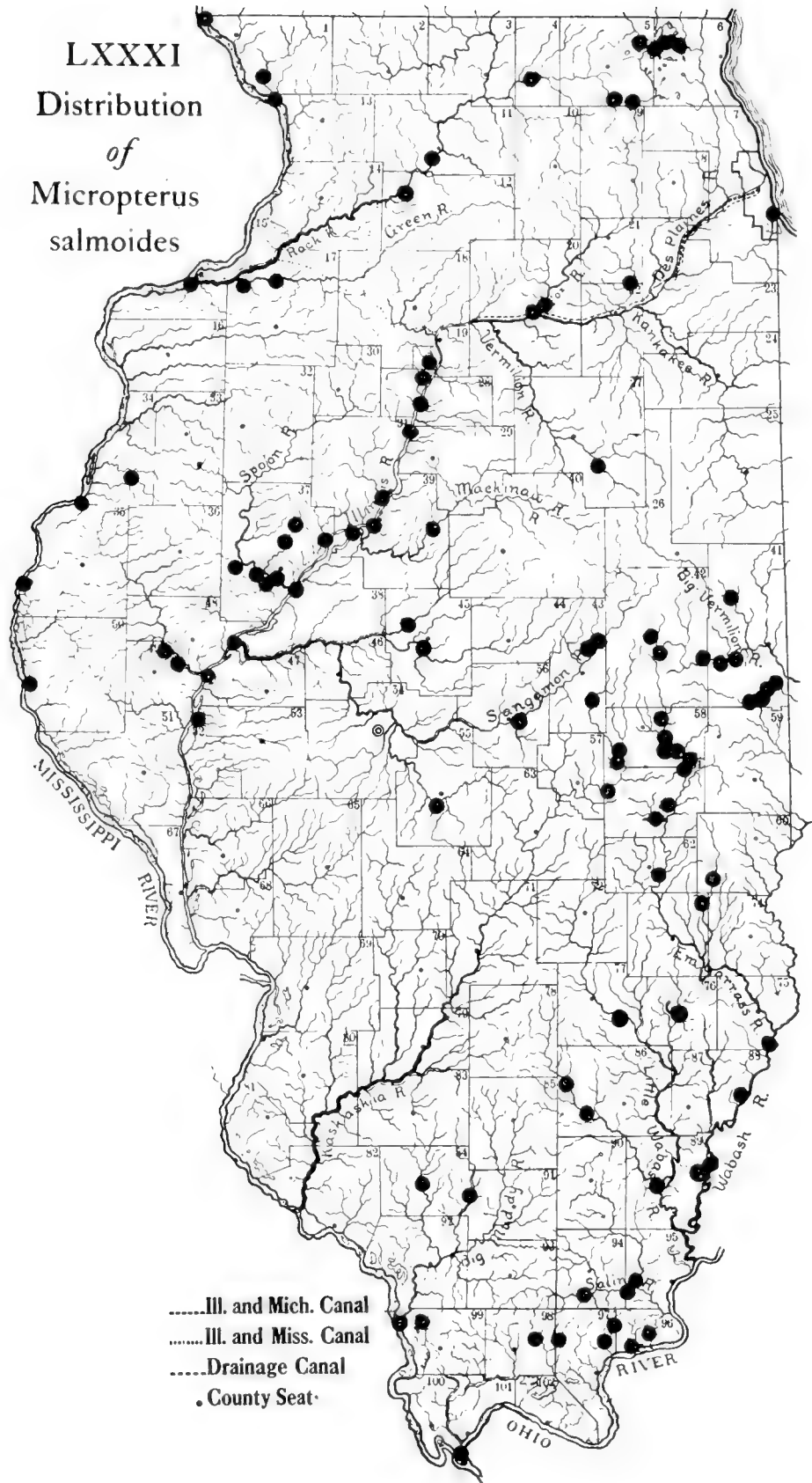
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LXXX  
 Distribution  
 of  
*Micropterus  
 dolomieu*





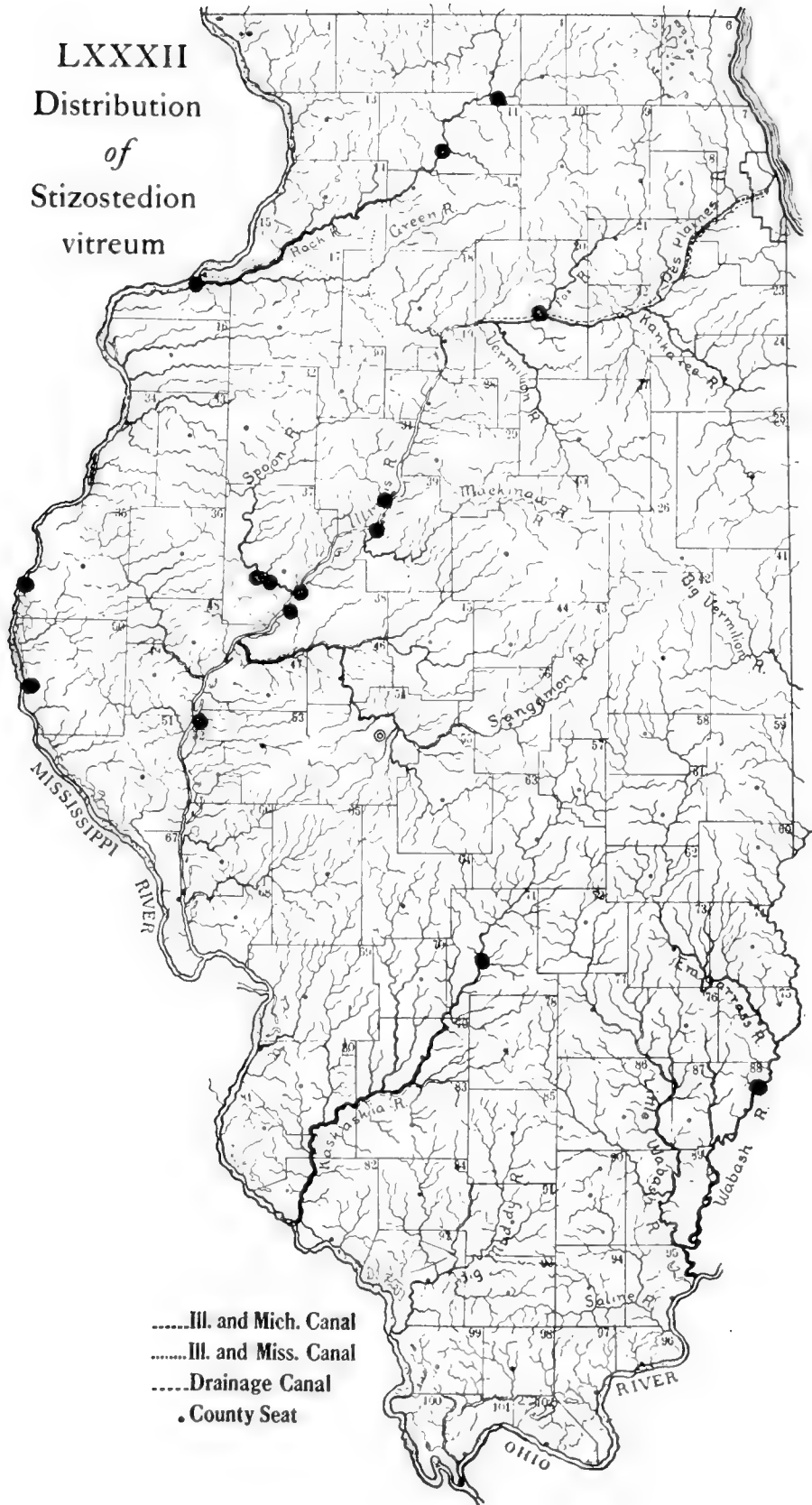
LXXXI  
 Distribution  
 of  
*Micropterus*  
*salmoides*



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LXXXII  
 Distribution  
 of  
*Stizostedion  
 vitreum*



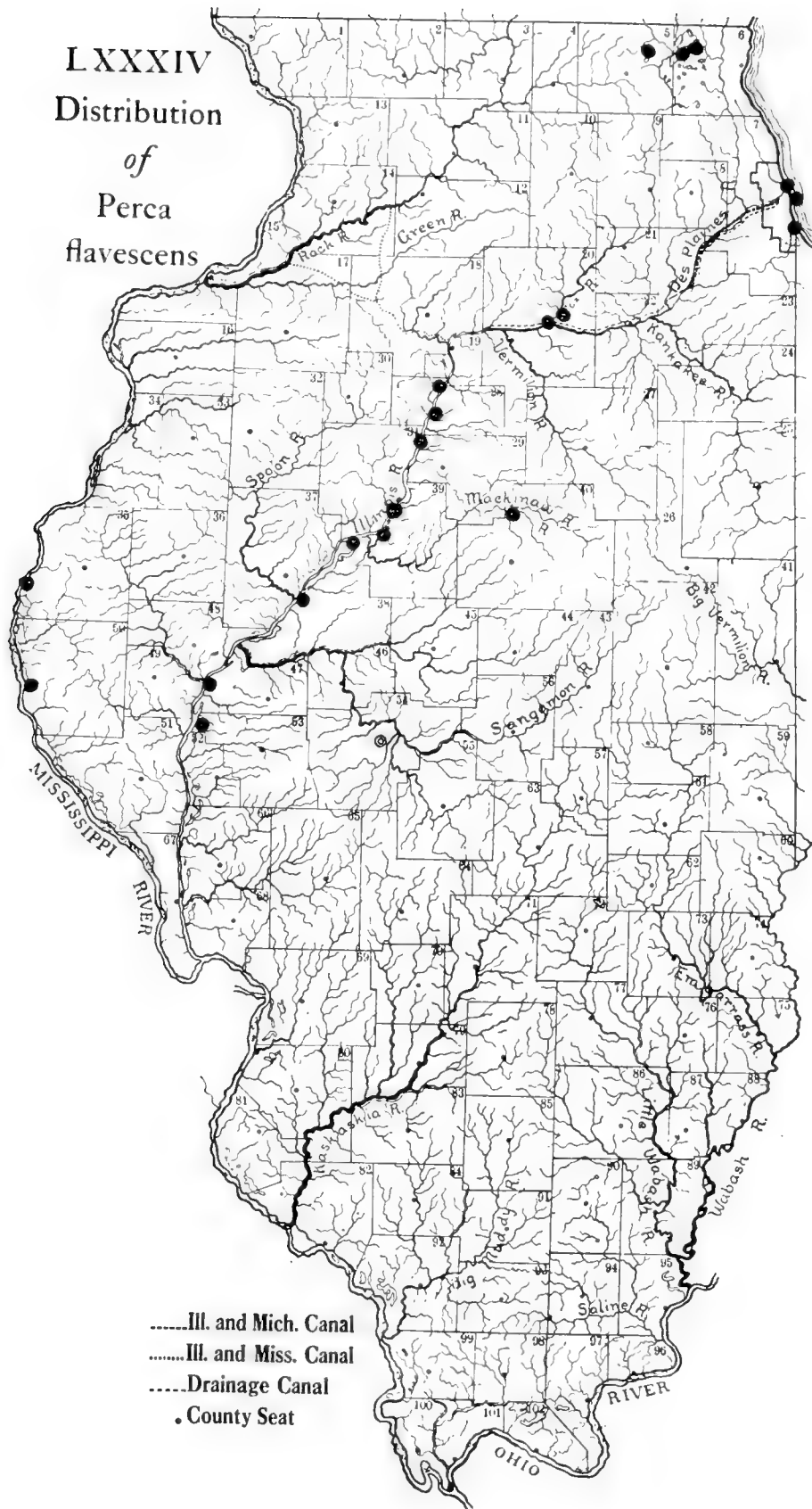
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LXXXIII  
 Distribution  
 of  
*Stizostedion  
 canadense  
 griseum*



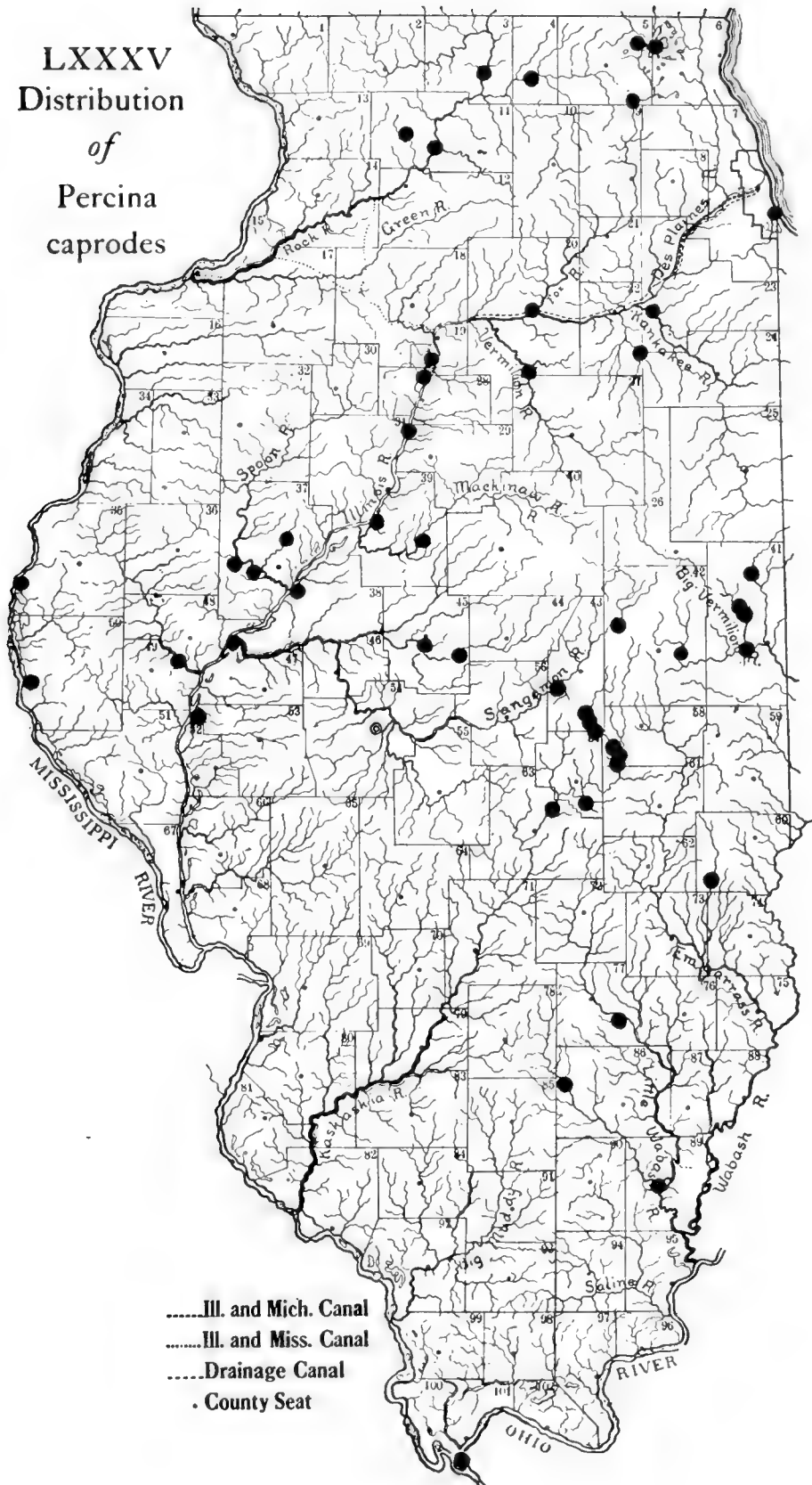
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LXXXIV  
 Distribution  
 of  
*Perca  
 flavescens*



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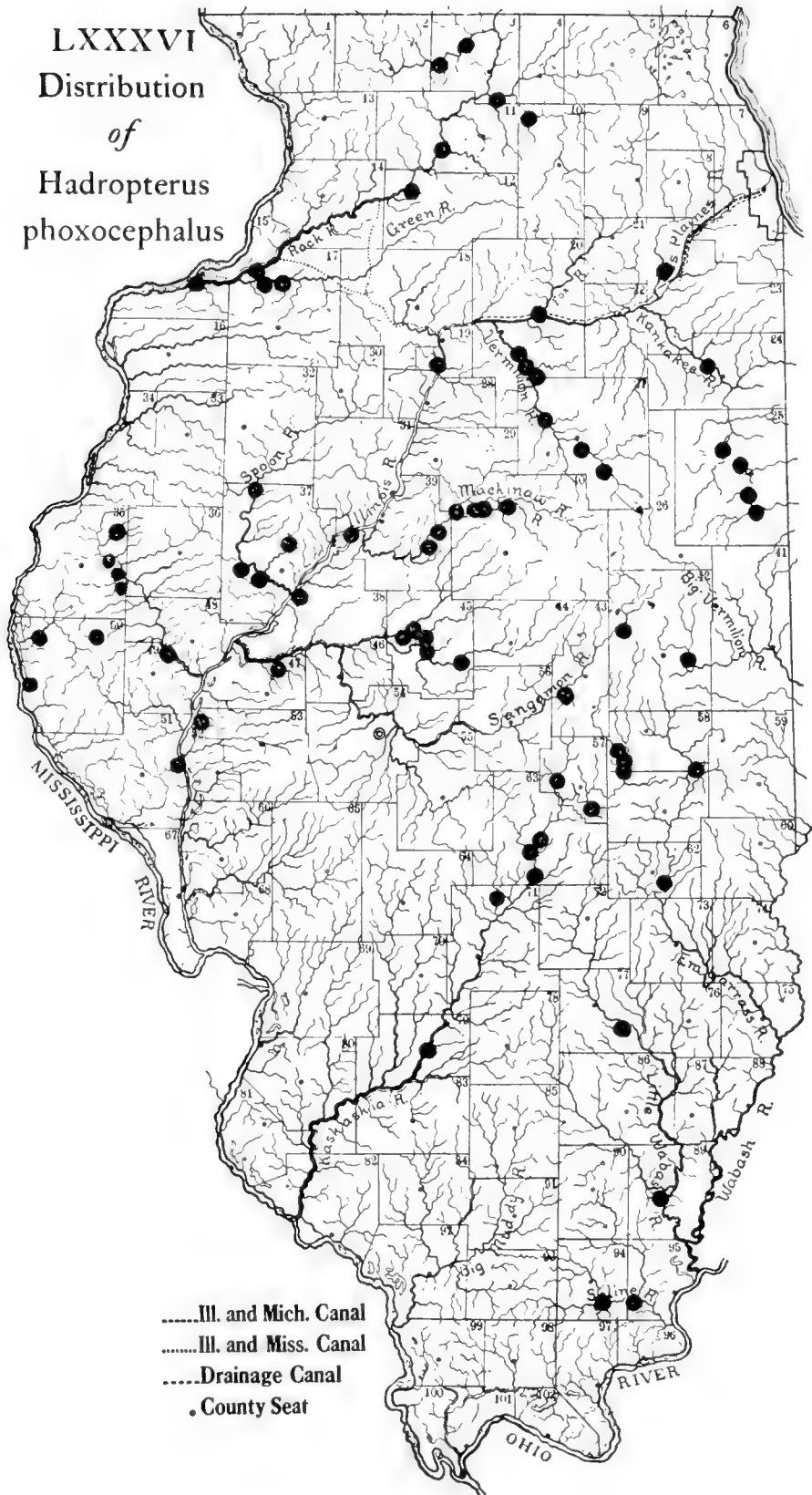
LXXXV  
 Distribution  
 of  
*Percina caprodes*



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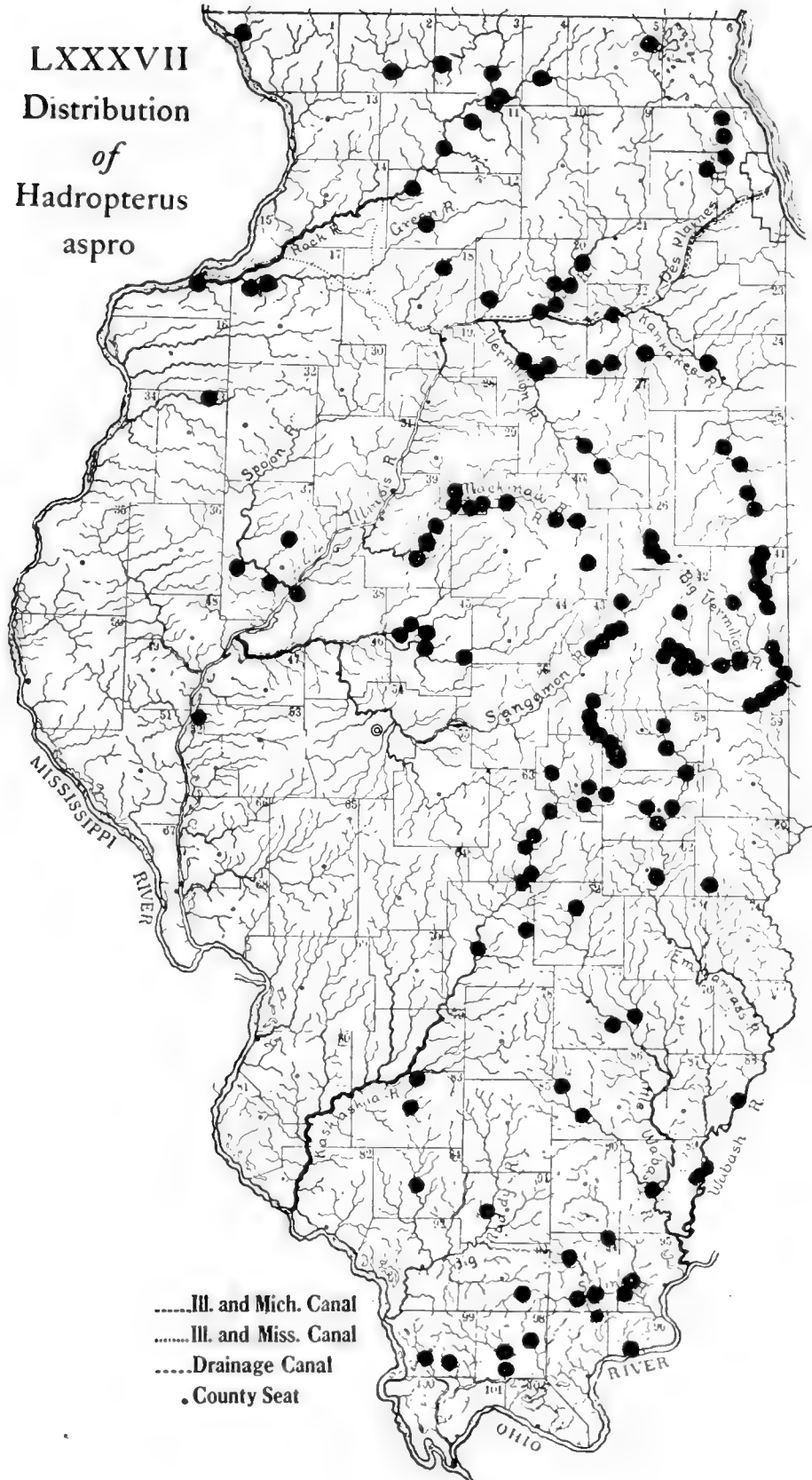


LXXXVI  
 Distribution  
 of  
*Hadroterus*  
*phoxocephalus*



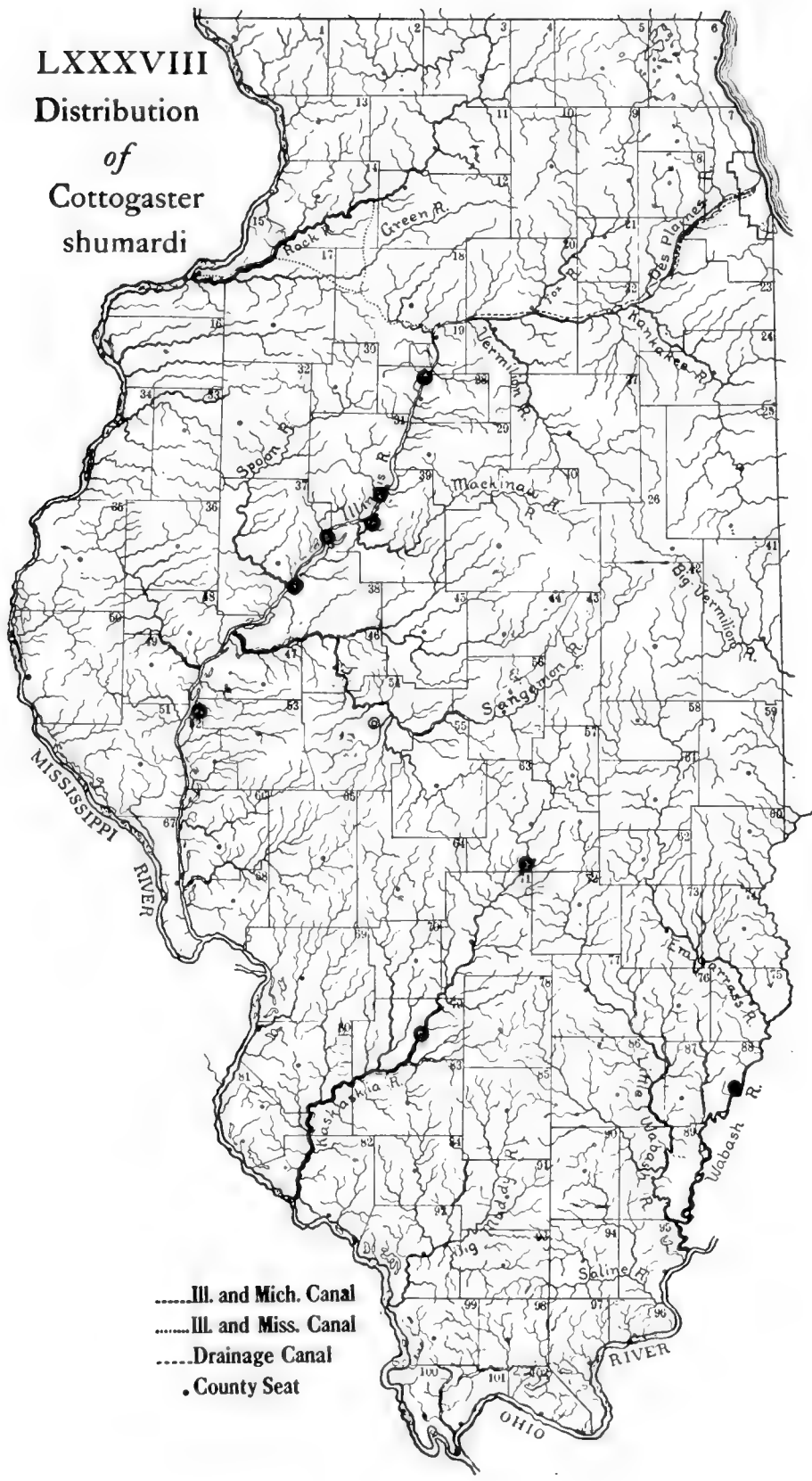
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LXXXVII  
 Distribution  
 of  
*Hadropterus*  
*aspro*



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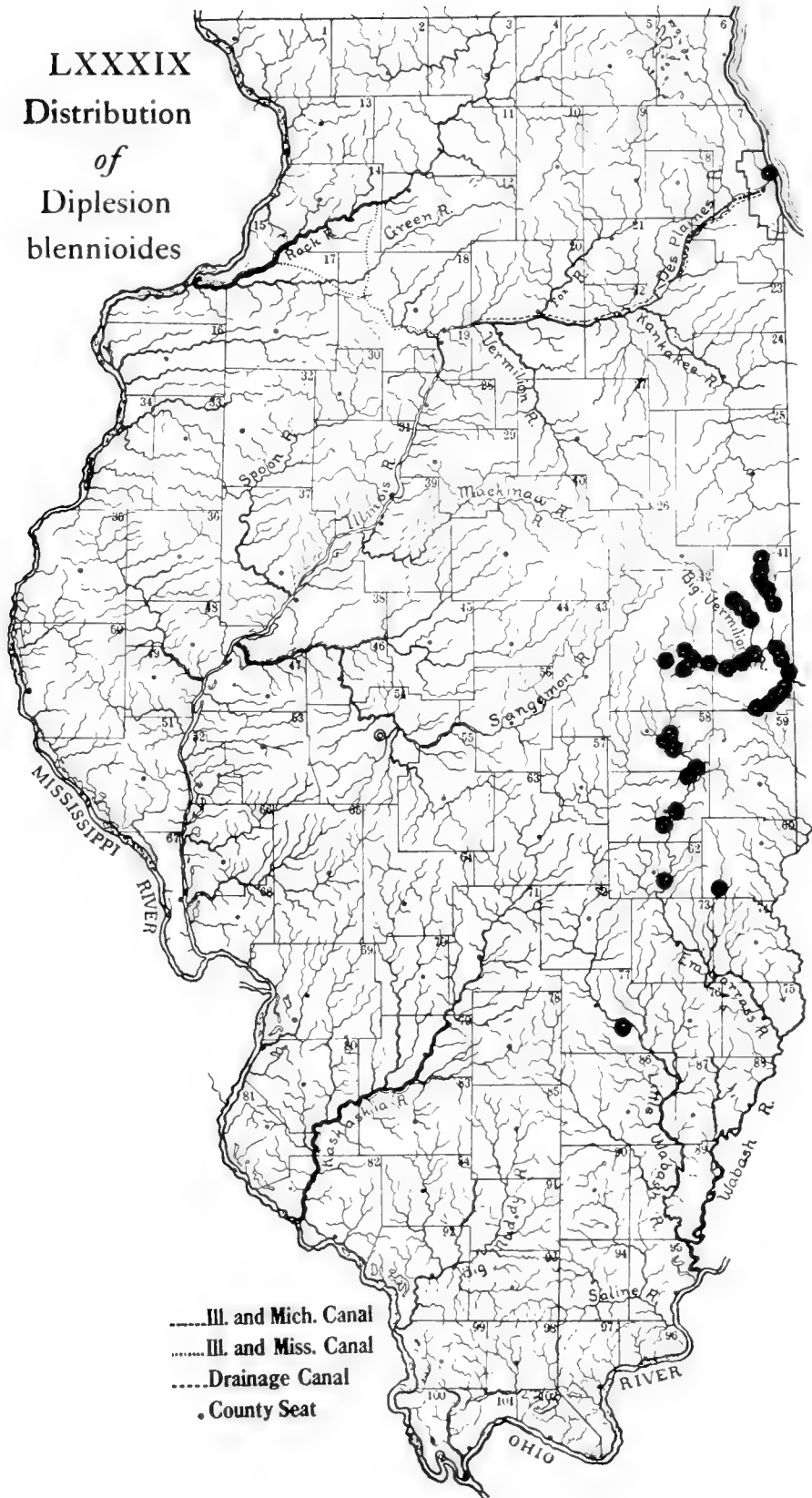
**LXXXVIII**  
**Distribution**  
*of*  
**Cottogaster**  
**shumardi**



-----Ill. and Mich. Canal  
 .....Ill. and Miss. Canal  
 -.-.-.-Drainage Canal  
 • County Seat

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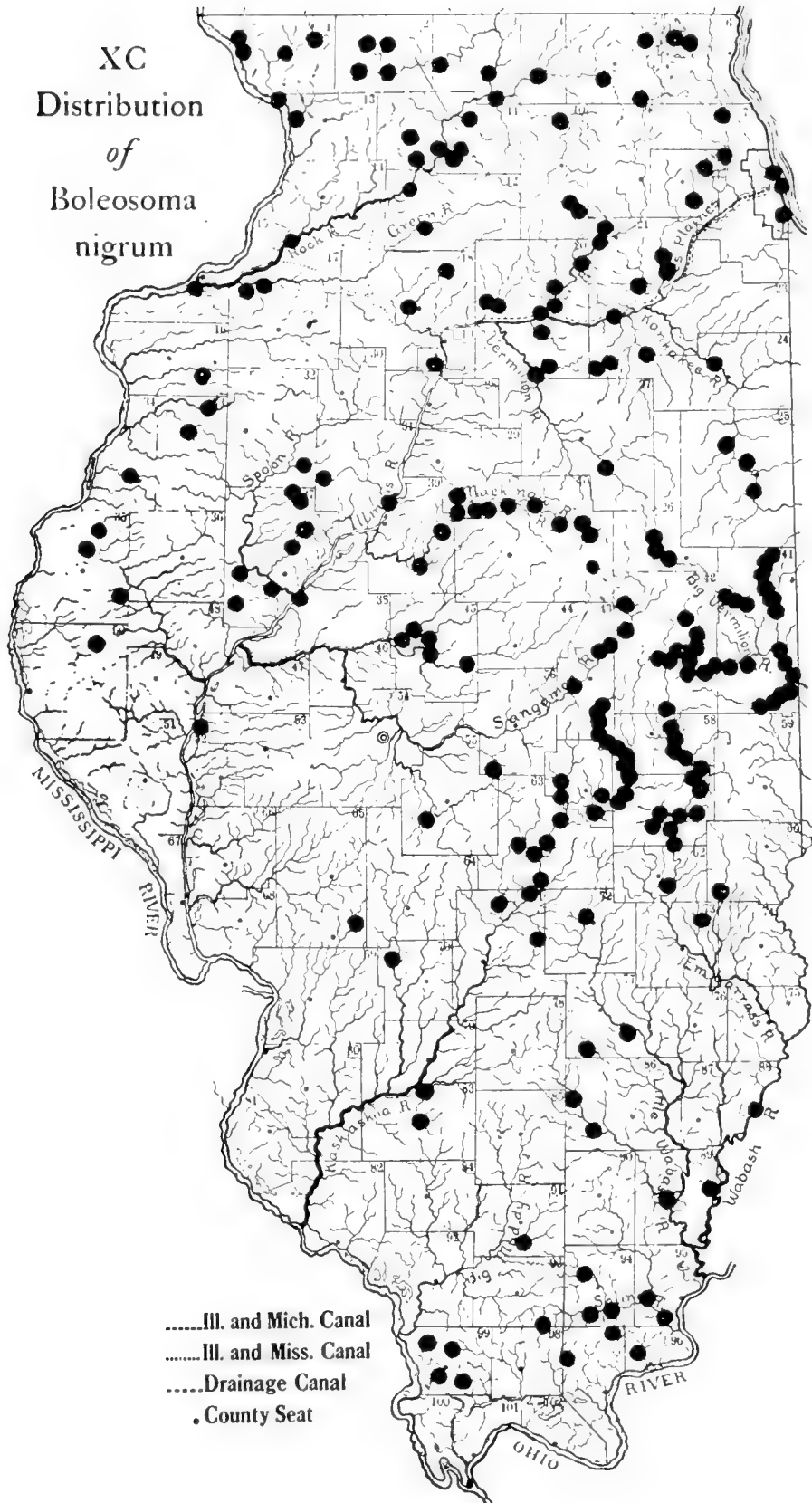
LXXXIX  
 Distribution  
 of  
*Diplesion  
 blennioides*



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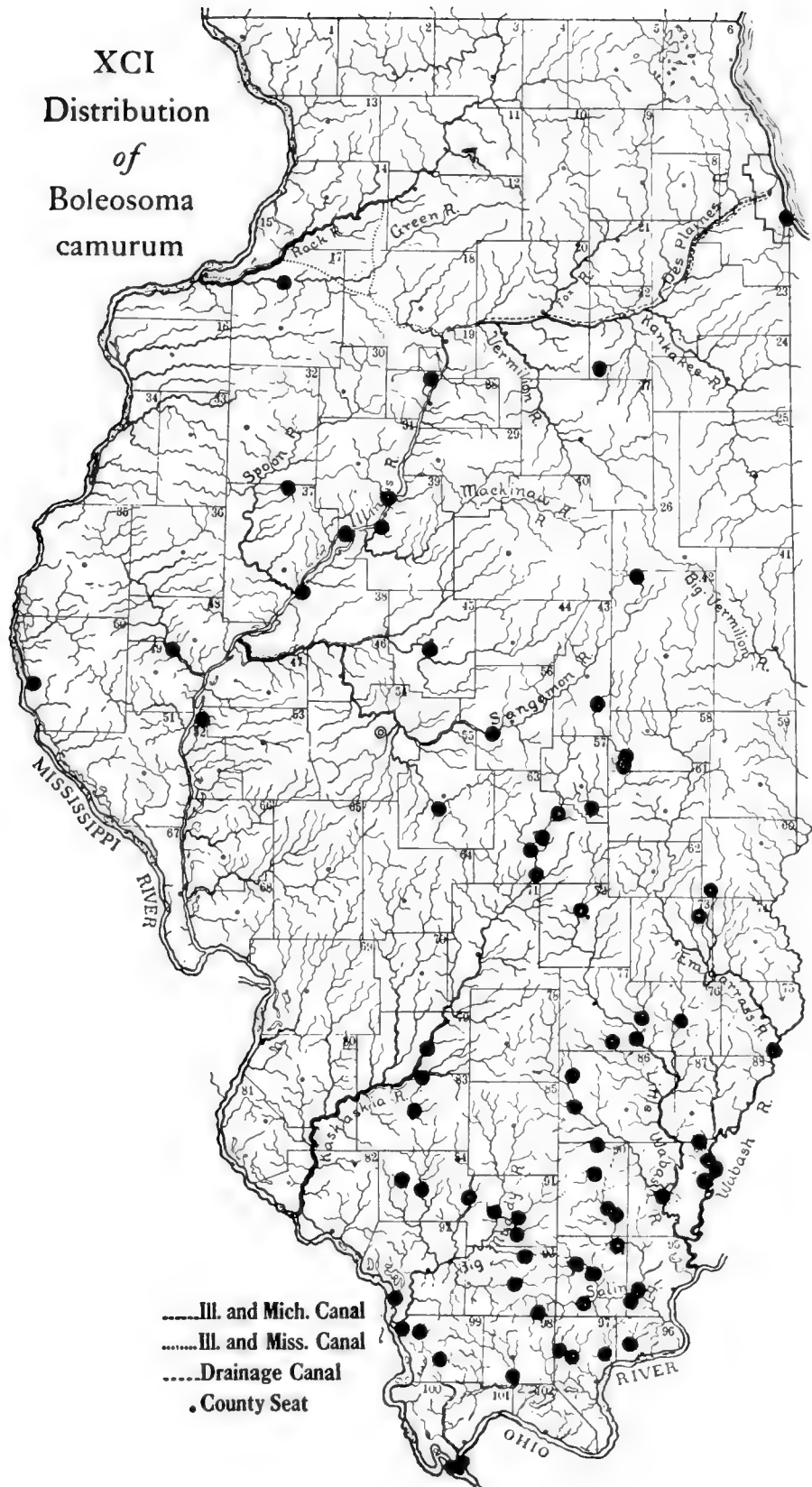


XC  
Distribution  
of  
*Boleosoma*  
*nigrum*



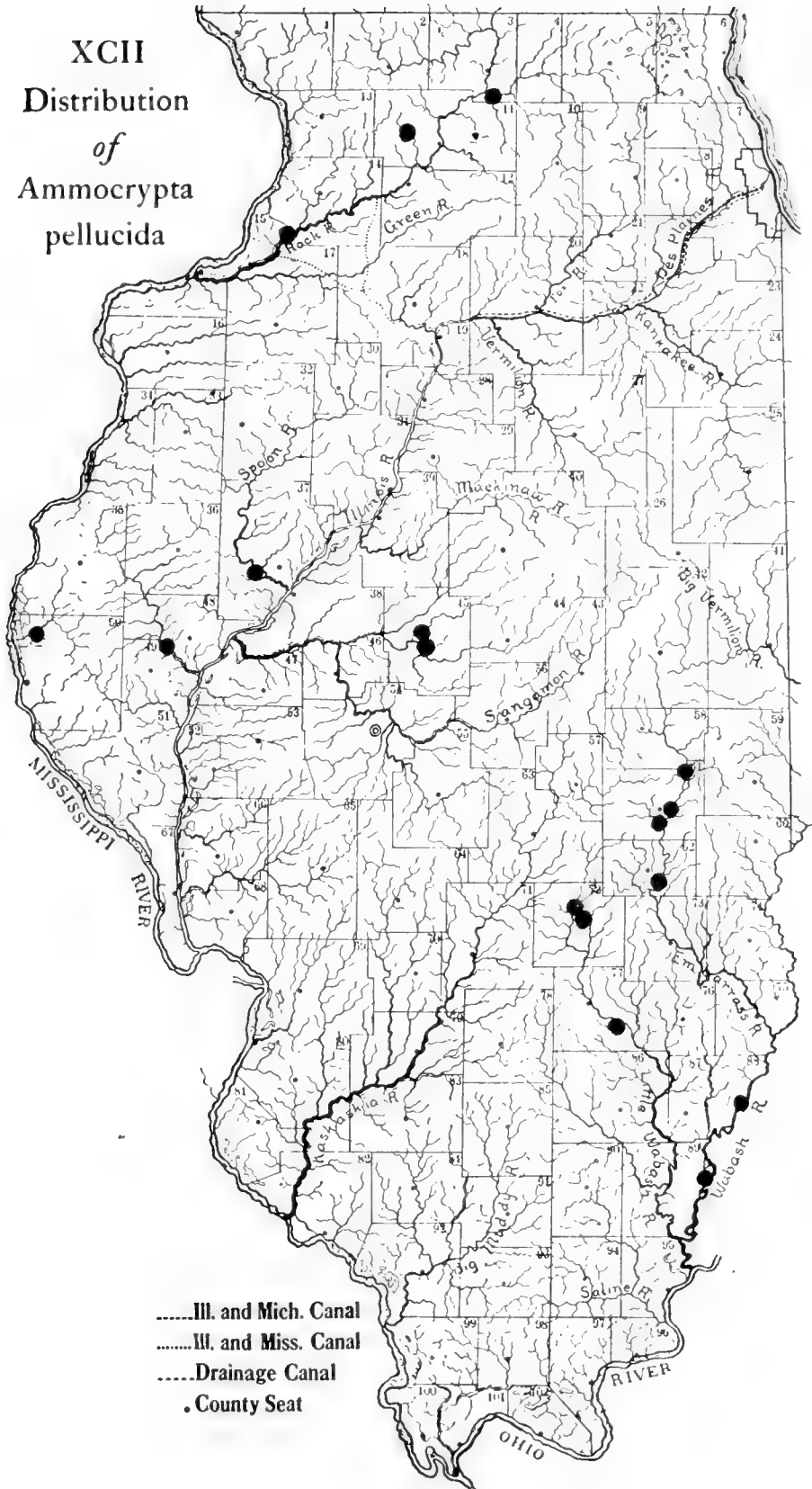
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XCI  
 Distribution  
 of  
*Boleosoma*  
*camurum*



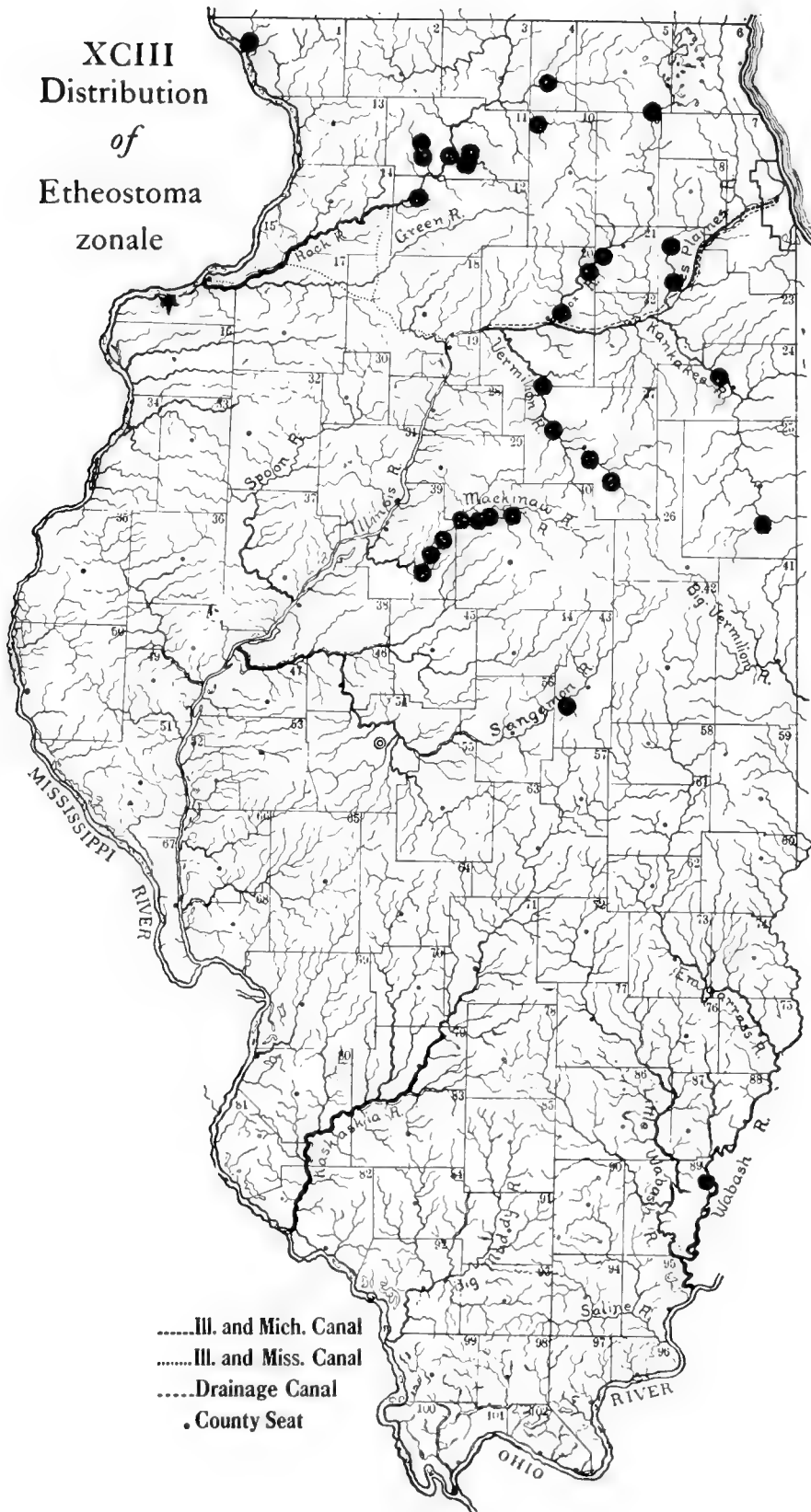
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**XCII**  
**Distribution**  
*of*  
**Ammocrypta**  
**pellucida**



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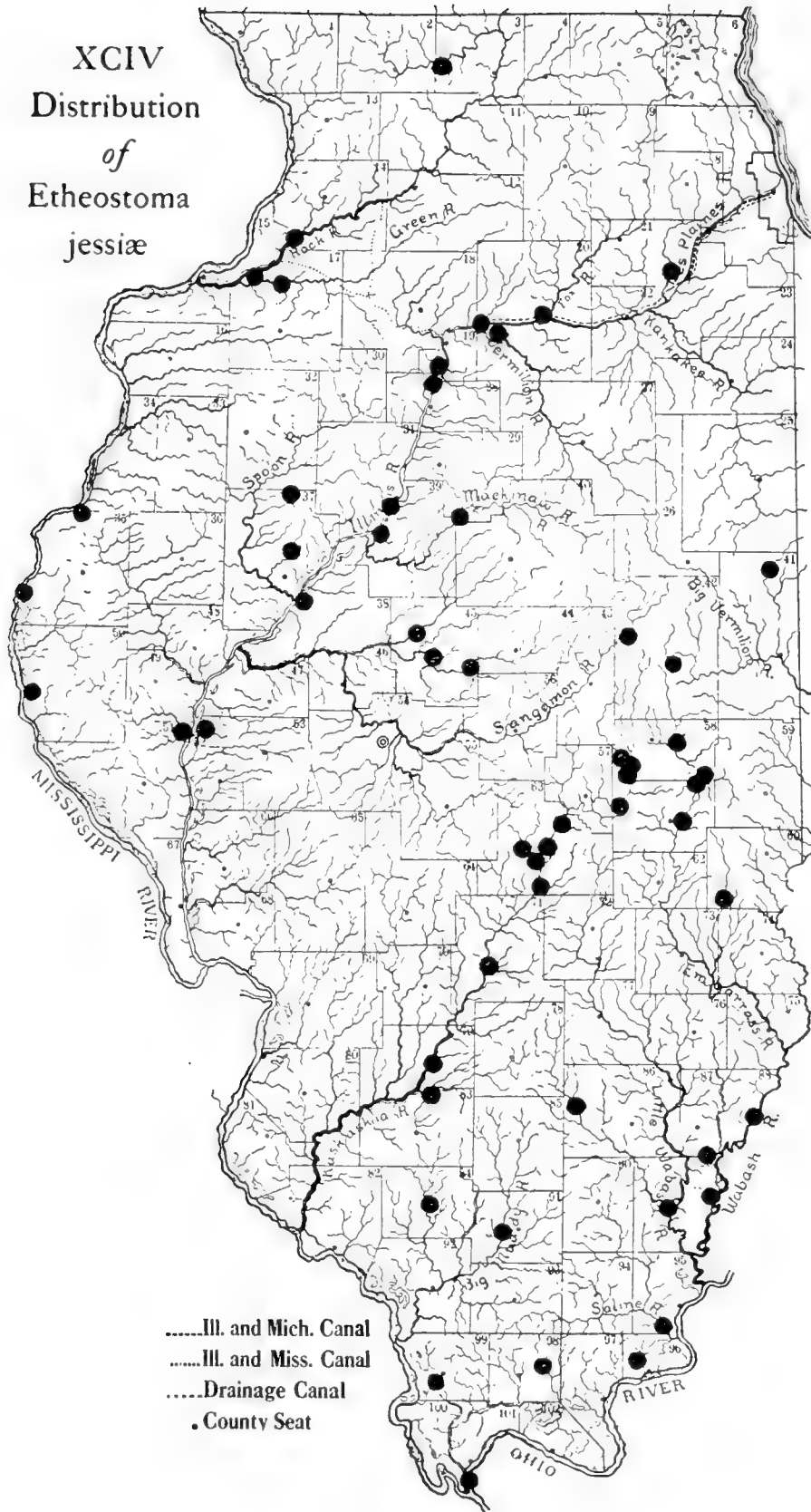
XCIII  
 Distribution  
 of  
*Etheostoma*  
 zonale



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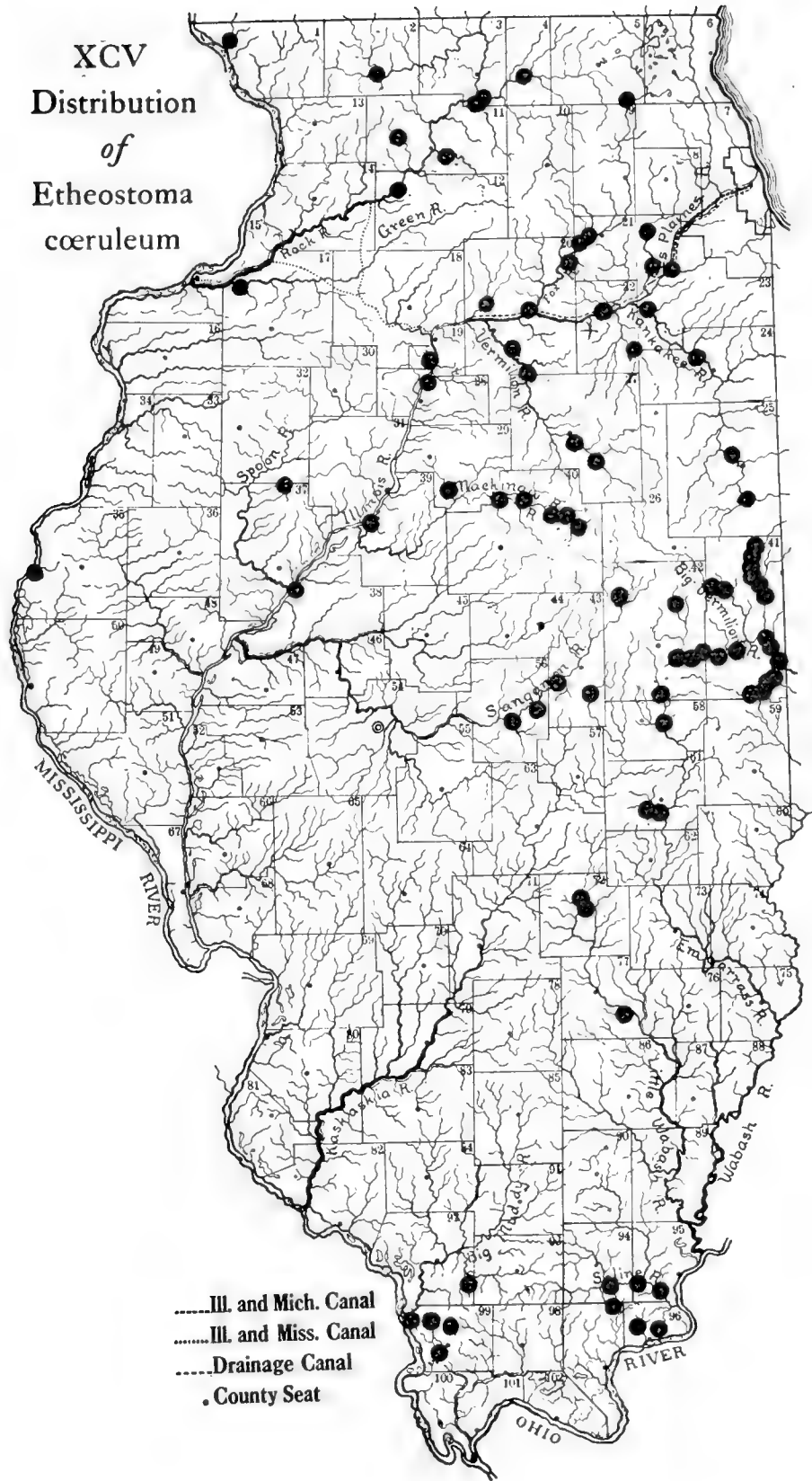


XCIV  
 Distribution  
 of  
*Etheostoma*  
*jessiae*



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XCV  
 Distribution  
 of  
*Etheostoma*  
*coeruleum*



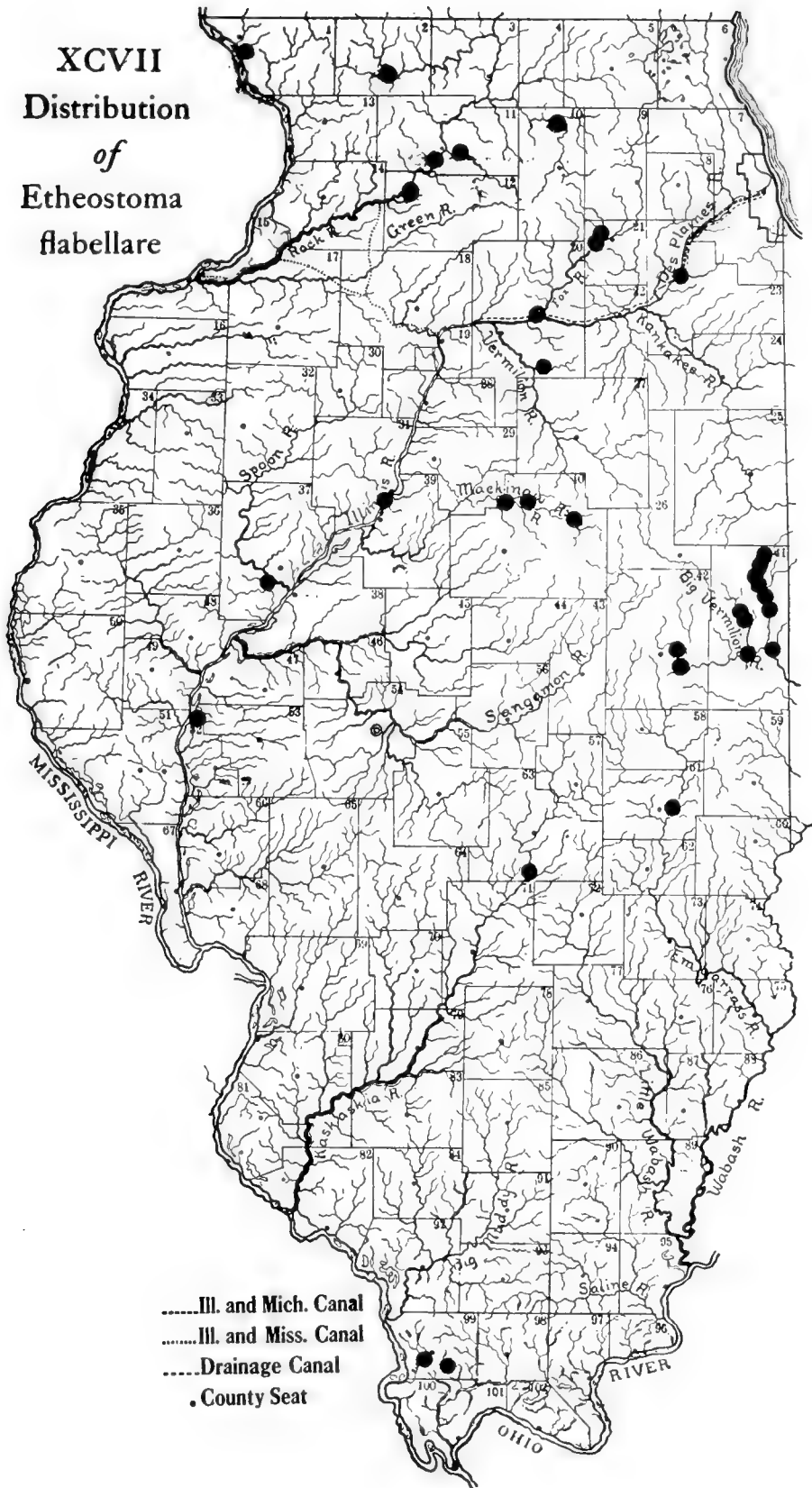
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XCVI  
 Distribution  
 of  
*Etheostoma  
 squamiceps*



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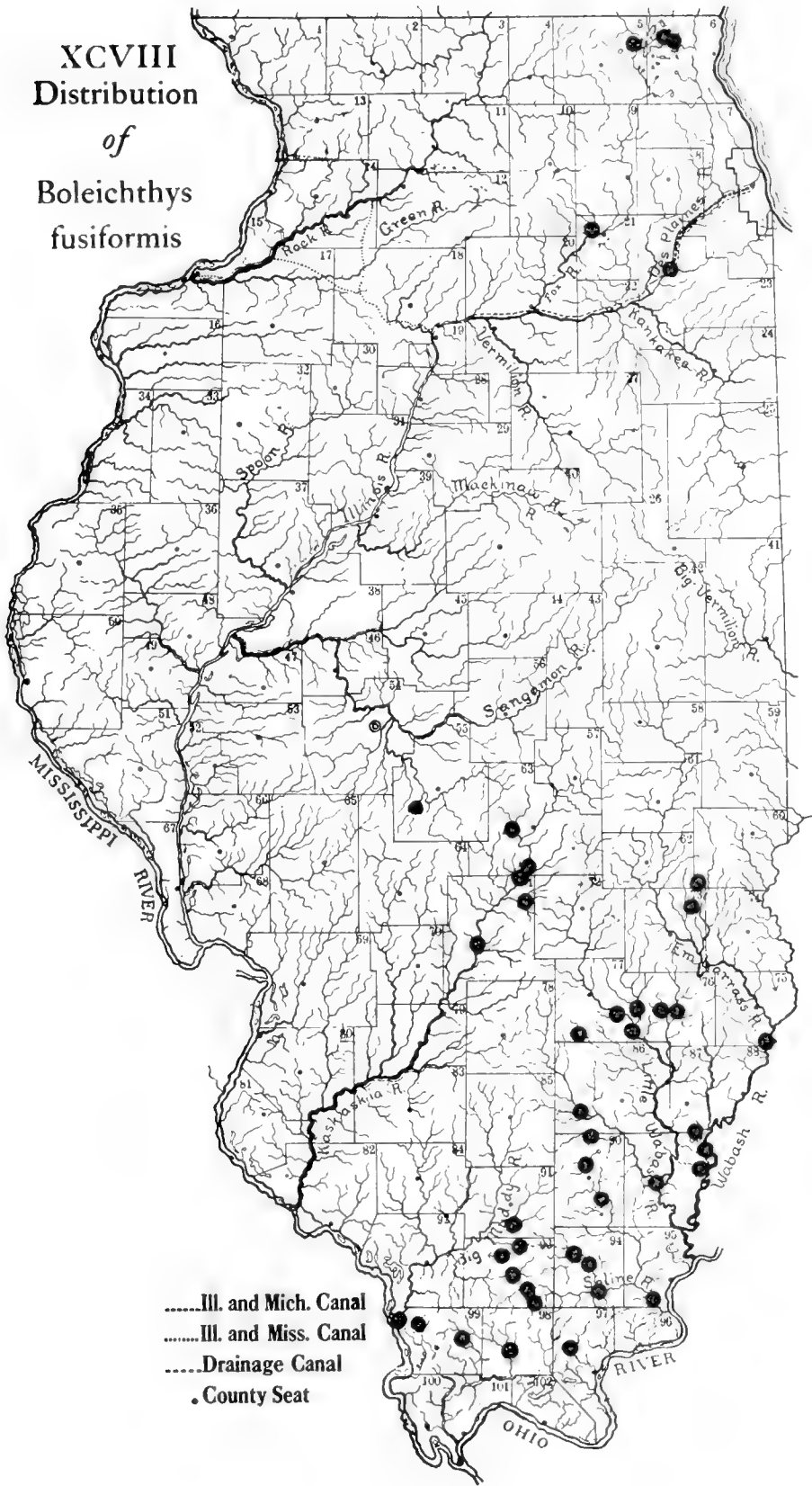
XCVII  
 Distribution  
 of  
*Etheostoma*  
*flabellare*



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XCVIII  
 Distribution  
 of  
*Boleichthys  
 fusiformis*



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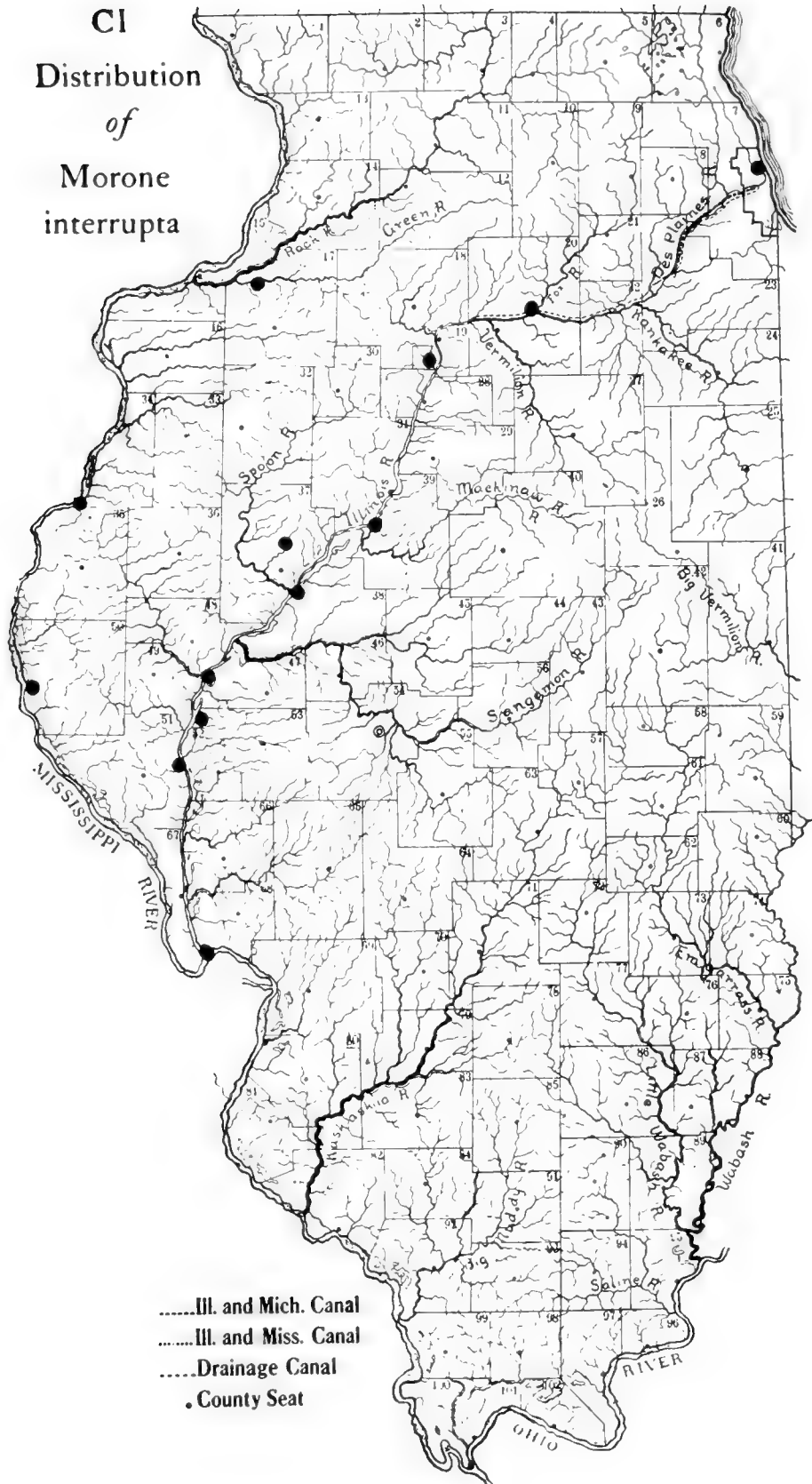
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C  
 Distribution  
 of  
*Roccus*  
*chrysops*



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**CI**  
**Distribution**  
*of*  
**Morone**  
**interrupta**



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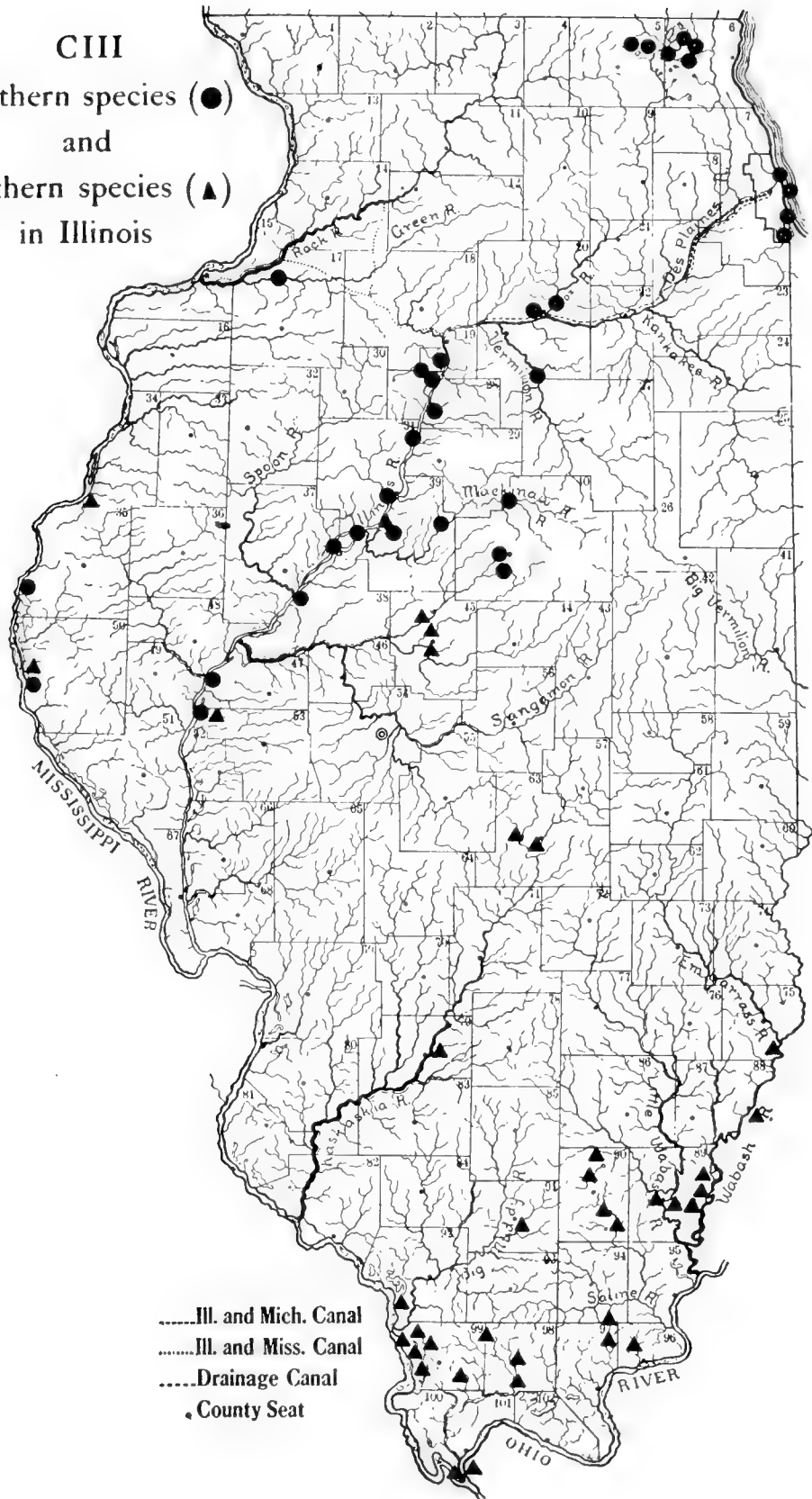


CII  
 Distribution  
 of  
*Aplodinotus  
 grunniens*



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**CIII**  
 Northern species (●)  
 and  
 Southern species (▲)  
 in Illinois



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