

Fishes
GSMSpecial Activities

✓ Dr. Carl Hubbs and his family continued their stay and fish collecting activities at Great Smokies until September 10. Dr. Hubbs reports a total of 59 species from the Park area, with 45 actually known to occur within the Park boundaries. Six species (including subspecies) new to science were taken. Dr. Hubbs, Joseph King and I, collecting in lower Abrams Creek, September 6, took two specimens of a turtle new to the Park. It is the small mud turtle, Sternotherus minor. This animal, unlike its relatives, inhabits clear rocky streams of medium elevation in the Tennessee drainage and south. Another find of especial interest was the taking of species of Necturus or mudpuppy in the same locality. This Necturus upon first examination appears to resemble a species just recently described from Northern Alabama, and is markedly different from the common species, Necturus maculosus, of the Tennessee and Mississippi valleys. ✓ Although final lists of Dr. Hubbs' collections are not yet available, it was evident that the Abrams Creek supports at least 30 species of native fishes, at least 9 of which do not occur elsewhere in the Park. On the basis of its stream fauna alone, sufficient justification exists for the inclusion of the entire Abrams Creek watershed within the Park. This stream empties directly into the Little Tennessee River below the Calderwood Dam, and naturally furnishes habitat to many of the river species in addition to supporting many of the common mountain streams forms. It is the finest small-mouthed bass stream in the Park area and has a strong appeal to the fisherman and because of the beauty of the stream and its dense natural forest cover. At the present time the lower 8 to 9 miles of Abrams Creek is private property.

from Mo. Report
Willis King
Sept. , 1937

FISHES - GSMNP - CHECK LISTS

List of fishes collected by the Carl L. Hubbs family in the region of the Great Smoky Mountains National Park, August, 1937 (assisted by Joe King).

Orig. No.	Locality		Date
Tenn.: Middle Prong, Little Pigeon R.			
M 37-900	<i>Hypentelium nigricans</i>	3	VIII:27:1937
"	<i>Notropis rubricroceus</i>	1	"
"	<i>Notropis coecogenis</i>	90	"
"	<i>Notropis galacturus</i>	10	"
"	<i>Notropis leuciodus</i>	10	"
"	<i>Notropis ariommus telescopus</i>	21	"
"	<i>Nocomis micropogon</i>	2	"
"	<i>Campostoma a. anomalum</i>	3	"
"	<i>Poeciliichthys rufilineatus</i>	1	"
"	<i>Ambloplites rupestris</i>	5	"
"	<i>Micropterus d. dolomieu</i>	5	"
M 37-901	<i>Campostoma a. anomalum</i>	8	VIII:27:1937
"	<i>Rhinichthys atratulus obtusus</i>	49	"
"	<i>Rhinichthys cataractae</i>	6	"
"	<i>Salmo gairdnerii irideus</i>	2	"
Tenn.: Dudley Cr., Sevier Co.			
M 37-902	<i>Hypentelium nigricans</i>	10	"
"	<i>Nocomis micropogon</i>	26	"
"	<i>Notropis coecogenis</i>	60	"
"	<i>Notropis rubricroceus</i>	19	"
"	<i>Notropis galacturus</i>	1	"
"	<i>Notropis leuciodus</i>	8	"
"	Hybrid: <i>Notropis leuciodus</i> x <i>Notropis rubricroceus</i>	1	"
"	<i>Campostoma a. anomalum</i>	13	"
"	<i>Catostomus f. flabellaris</i>	4	"
"	<i>Ambloplites rupestris</i>	1	"
"	<i>Micropterus d. dolomieu</i>	5	"
Tenn.: W. Prong, Little Pigeon R.			
M 37-903	<i>Hypentelium nigricans</i>	20	VIII:28:1937
"	<i>Notropis galacturus</i>	28	"
"	<i>Notropis coecogenis</i>	70	"
"	<i>Notropis rubricroceus</i>	3	"
"	<i>Notropis ariommus telescopus</i>	11	"
"	<i>Notropis leuciodus</i>	14	"
"	Hybrid: <i>Notropis leuciodus</i> x <i>Notropis rubricroceus</i>	1	"
"	<i>Nocomis micropogon</i>	9	"
"	<i>Poeciliichthys caurus</i>	3	"
"	<i>Poeciliichthys swannanoa</i>	1	"
"	<i>Poeciliichthys rufilineatus</i>	1	"
"	<i>Ulocentra simotera</i>	5	"
"	<i>Ambloplites rupestris</i>	2	"
"	<i>Micropterus d. dolomieu</i>	6	"
"	<i>Cottus bairdii subsp.</i>	2	"

	Tenn.: Fighting Cr., Sevier Co.		VIII:28:1937
M 37-904	Hypentelium nigricans	4	
"	Notropis coecogenis	19	"
"	Notropis rubriorocaeus	7	"
"	Rhinichthys atratulus obtusus	26	"
"	Rhinichthys oataractae	5	"
"	Nocomis micropogon	1	"
"	Campostoma a. anomalum	5	"
"	Catnotus f. flabellaris	11	"
"	Micropterus d. dolomieu	1	"
"	Cottus bairdii subsp.	31	"
	Tenn.: W. Prong, Little Pigeon R.		
M 37-905	Salmo gairdnerii irideus	1	"
"	Salvelinus f. fontinalis	1	"
"	Rhinichthys atratulus obtusus	3	"
	Tenn.: Walter Camp Prong, trib. W. Prong, Little Pigeon R.		VIII:30:1937
M 37-906	Salvelinus f. fontinalis	2	
	Tenn.: Webb Cr., Sevier Co.		
M 37-907	Hypentelium nigricans	17	"
"	Moxostoma d. duquesnii	2	"
"	Nocomis micropogon	29	"
"	Campostoma a. anomalum	19	"
"	Notropis galacturus	26	"
"	Notropis coecogenis	73	"
"	Notropis leuciodus	55	"
"	Notropis ariomus telescopus	35	"
"	Catnotus f. flabellaris	2	"
"	Micropterus d. dolomieu	1	"
	Tenn.: trib. Middle Prong, Little Pigeon R.		
M 37-908a	Rhinichthys atratulus obtusus	29	"
	Tenn.: Middle Prong, Little Pigeon R.		
M 37-908b	Moxostoma d. duquesnii	19	"
"	Moxostoma erythrurum	5	"
"	Hypentelium nigricans	2	"
"	Notropis coecogenis	30	"
"	Notropis galacturus	30	"
"	Notropis cornutus chrysocephalus	9	"
"	Notropis photogenis	1	"
"	Notropis leuciodus	2	"
"	Notropis ariomus telescopus	1	"
"	Notropis v. volucellus	3	"
"	Campostoma a. anomalum	1	"
"	Hybopsis a. amblops	19	"
"	Phenacobius uranops	4	"
"	Nocomis micropogon	6	"
"	Hypohomus aurantiaous	1	"
"	Ulocentra simotera	3	"
"	Poecilichthys rufilineatus	3	"
"	Poecilichthys camurus	2	"
"	Etheostoma blennioides newmani	2	"
"	Ambloplites rupestris	4	"
"	Micropterus d. dolomieu	4	"

M 37-909

Tenn.: W. Prong, Little Pigeon R.

Moxostoma d. duquesnii	5
Moxostoma erythrurum	7
Hypentelium nigricans	9
Campostoma a. anomalum	13
Notropis coecogenis	28
Notropis cornutus chrysocephalus	8
Notropis leuciodus	34
Notropis ariomus telescopus	37
Notropis photogenis	16
Notropis micropteryx	3
Notropis galacturus	26
Notropis spilopterus	1
Notropis v. volucellus	4
Erimystax sp.	3
Nocomis micropogon	24
Hybopsis a. amblops	28
Schilbeodes eleutherus	3
Fundulus catenatus	5
Phenacobius uranops	6
Hadropterus macrocephalus	1
Ulocentra simotera	25
Etheostoma blennioides newmani	5
Doration meadii	4
Catostomus kennicottii subsp.	5
Poeciliichthys z. zonalis	10
Poeciliichthys maculatus	4
Poeciliichthys rufilineatus	7
Ambloplites rupestris	6
Micropterus d. dolomieu	5
Lepomis m. megalotis	2

VIII:31:1937

M 37-910

Tenn.: Little River, Blount Co.

Salmo gairdnerii irideus	1
Hypentelium nigricans	8
Notropis coecogenis	38
Notropis galacturus	18
Notropis rubricroceus	21
Nocomis micropogon	33
Rhinichthys atratulus obtusus	3
Rhinichthys cataractae	2
Campostoma a. anomalum	5
Cottus bairdii subsp.	17

IX:1:1937

M 37-912

Tenn.: Laurel Cr., Blount Co.

Hypentelium nigricans	5
Notropis galacturus	12
Rhinichthys cataractae	7
Rhinichthys atratulus obtusus	48
Campostoma a. anomalum	41
Etheostoma blennioides newmani	1
Ulocentra simotera	1
Micropterus d. dolomieu	4

IX:1:1937

M 37-913

Tenn.: Anthony Cr., Blount Co.

Salmo gairdnerii irideus	1
Catostomus c. commersonii	16

IX:2:1937

M 37-918	Notropis coecogenis	6	IX:3:1937
"	Notropis leuciodus	26	"
"	Rhinichthys cataractae	3	"
"	Clinostomus sp.	6	"
	Tenn.: Carr Cr., Blount Co.		
M 37-919	Moxostoma d. duquesnii	1	IX:4:1937
"	Nocomis micropogon	2	"
"	Campostoma a. anomalum	14	"
"	Notropis galacturus	19	"
"	Notropis cornutus chrysocephalus	7	"
"	Notropis coecogenis	8	"
"	Hybopsis a. amblops	4	"
"	Fundulus catenatus	14	"
"	Ambloplites rupestris	1	"
	Tenn.: Little R., Blount Co.		
M 37-920	Moxostoma d. duquesnii	14	"
"	Hypentelium nigricans	5	"
"	Notropis galacturus	9	"
"	Notropis ariommus telescopus	26	"
"	Notropis cornutus chrysocephalus	15	"
"	Notropis photogenis	14	"
"	Notropis leuciodus	8	"
"	Notropis coecogenis	9	"
"	Campostoma a. anomalum	13	"
"	Nocomis micropogon	11	"
"	Phenacobius uranops	5	"
"	Hybopsis amblops amblops	1	"
"	Fundulus catenatus	21	"
"	Hypohomus aurantiaeus	1	"
"	Poeciliichthys z. zonalis	8	"
"	Poeciliichthys rufilineatus	8	"
"	Etheostoma blennioides newmanii	6	"
"	Ulocentra simotera	3	"
"	Lepomis m. megalotis	1	"
"	Ambloplites rupestris	1	"
"	Cottus bairdii caroliniae	2	"
	Tenn.: Tipton Br., Blount Co.		
M 37-921	Notropis leuciodus	2	"
"	Notropis ariommus telescopus	8	"
"	Notropis cornutus chrysocephalus	3	"
"	Notropis coecogenis	11	"
"	Hybopsis a. amblops	3	"
"	Phenacobius uranops	2	"
"	Nocomis micropogon	1	"
"	Campostoma a. anomalum	12	"
"	Ulocentra simotera	1	"
"	Lepomis megalotis megalotis	1	"
	Tenn.: Abrams Cr., Blount Co.		
M 37-922	Lepisosteus osseus oxyurus	1	IX:6:1937
"	Hypentelium nigricans	4	"
"	Moxostoma erythrurum	1	"
"	Moxostoma d. duquesnii	1	"
"	Nocomis micropogon	9	"
"	Notropis coecogenis	11	"
"	Notropis cornutus chrysocephalus	3	"

M 37-922	Notropis ariomnus telescopus	57	IX:6:1937
"	Notropis galacturus	31	"
"	Notropis v. volucellus	9	"
"	Notropis photogenis	1	"
"	Notropis leuciodus	4	"
"	Notropis spilopterus	4	"
"	Campostoma a. anomalum	9	"
"	Hybopsis amblops amblops	36	"
"	Phenacobius uranops	10	"
"	Fundulus ostenatus	6	"
"	Erimystax monachus	39	"
"	Poeciliichthys camurus	1	"
"	Poeciliichthys maculatus	1	"
"	Poeciliichthys z. zonalis	6	"
"	Hybrid; Poeciliichthys maculatus x		"
"	Poeciliichthys rufilineatus	1	"
"	Etheostoma blennioides newmanii	23	"
"	Ulocentra simotera	13	"
"	Poeciliichthys rufilineatus	21	"
"	Doration meadiae	1	"
"	Catonotus f. flabellaris	2	"
"	Hadropterus evides	2	"
"	Stizostedion c. canadense	1	"
"	Ambloplites rupestris	1	"
"	Micropterus d. dolomieu	3	"
"	Lepomis m. megalotis	6	"
"	Lepomis m. macrochirus	8	"
Tenn.: Little Tennessee R., Blount Co.			
M 37-926	Moxostoma breviceps	1	"
M 37-(923-925)	Moxostoma erythrurum	8	"
M 37-927	Placopharynx carinatus	1	"
North Carolina: Twentymile Cr., Swain Co.			
M 37-928a	Campostoma anomalum subsp.	1	IX:7:1937
"	Nocomis micropogon	14	"
M 37-928a&b	Notropis coccogenis	33	"
M 37-928b	Notropis micropteryx	1	"
"	Moxostoma erythrurum	18	"
"	Moxostoma breviceps	1	"
"	Moxostoma duquesnii subsp.	2	"
"	Placopharynx carinatus	1	"
"	Huro salmoides	4	"
"	Lepomis m. macrochirus	8	"
North Carolina: Little Tennessee R., Swain Co.			
M 37-929	Moxostoma erythrurum	5	"
"	Nocomis micropogon	5	"
"	Notropis coccogenis	10	"
"	Notropis galacturus	24	"
"	Ictalurus lacustris punctatus	1	"
"	Lepomis m. macrochirus	1	"
"	Micropterus d. dolomieu	3	"
North Carolina: Forney Cr., Swain Co.			
M 37-930	Moxostoma duquesnii subsp.	3	IX:8:1937
"	Hypentelium nigricans	1	"
"	Notropis coccogenis	25	"
"	Notropis galacturus	19	"

M 37-930	Notropis photogenis	1	IX:8:1937
"	Notropis spectrunculus subsp.	4	"
"	Notropis leuciodus	7	"
"	Nocomis micropogon	6	"
"	Campostoma anomalum subsp.	1	"
"	Poeciliichthys camurus	6	"
"	Hadropterus evides	1	"
"	Ambloplites rupestris	1	"
North Carolina: Deep Cre., Swain Co.			
M 37-931	Catostomus c. commersonii	2	"
"	Hypentelium nigricans	19	"
"	Moxostoma duquesnii subsp.	26	"
"	Moxostoma erythrurum	1	"
"	Notropis leuciodus	1	"
"	Notropis ariommus telescopus	5	"
"	Notropis photogenis	1	"
"	Notropis spectrunculus subsp.	65	"
"	Notropis galacturus	14	"
"	Notropis coccogenis	28	"
"	Semotilus a. atromaculatus	4	"
"	Nocomis micropogon	5	"
"	Campostoma anomalum subsp.	5	"
"	Poeciliichthys gutselli	1	"
"	Hadropterus evides	1	"
"	Ambloplites rupestris	2	"
"	Huro salmoides	1	"
North Carolina: Oconaluftee R., Swain Co.			
M 37-932	Moxostoma duquesnii subsp.	2	IX:9:1937
"	Hypentelium nigricans	2	"
"	Notropis spectrunculus subsp.	162	"
"	Notropis coccogenis	24	"
"	Notropis leuciodus	3	"
"	Notropis photogenis	5	"
"	Nocomis micropogon	3	"
"	Poeciliichthys gutselli	1	"
"	Ambloplites rupestris	2	"
"	Micropterus d. dolomieu	1	"
"	Notropis ariommus telescopus	1	"
M 37-933	Hypentelium nigricans	5	"
"	Moxostoma duquesnii subsp.	1	"
"	Notropis leuciodus	47	"
"	Notropis spectrunculus subsp.	41	"
"	Notropis coccogenis	82	"
"	Notropis ariommus telescopus	1	"
"	Phenacobius catostomus	9	"
"	Campostoma anomalum subsp.	22	"
"	Nocomis micropogon	17	"
"	Hadropterus evides	1	"
"	Poeciliichthys camurus	2	"
"	Micropterus d. dolomieu	4	"
"	Cottus bairdii subsp.	4	"
M 37-934c	Ichthyomyzon sp.	14	IX:10:1937

LOCATION OF FISH COLLECTIONS MADE BY THE CARL L. HUBBS FAMILY IN THE VICINITY
OF GREAT SMOKY MTS. NATIONAL PARK, AUG.-SEPT., 1937

- M37-900 Tennessee: Middle Prong of Little Pigeon R., Sevier Co. Immediately N. of the Park boundary, at Emerts Cove. Elev. 1370 ft.
- M37-901 Tennessee: Middle Prong of Little Pigeon R., above Porters Cr., Great Smoky Mts. National Park, Sevier Co.
- M37-902 Tennessee: Dudley Cr., trib. to W. Fork of Little Pigeon R., Sevier Co. About 1 mi. NE of Gatlinburg. Just outside the Park. Elev. 1300 ft.
- M37-903 Tennessee: W. Prong of Little Pigeon R., about 2 miles above Gatlinburg, Sevier Co. Elev. 1400'.
- M37-904 Tennessee: Fighting Cr., trib. to W. Prong of Little Pigeon R., Sevier Co. In Great Smoky Mts. Nat. Park. Elev. 1600 ft.
- M37-905 Tennessee: W. Prong of Little Pigeon R., Sevier Co. Just below "Chimneys", Great Smoky Mts. Nat. Park. Elev. 2700 ft.
- M37-906 Tennessee: Walker Camp Prong, trib. to W. Prong of Little Pigeon R., Sevier Co. Elev. 4550 ft.
- M37-907 Tennessee: Webb Cr., trib. to Middle Prong of Little Pigeon R., Sevier Co. 7/10 mi. above mouth in Middle Prong. Elev. 1350 ft.
- M37-908a Tennessee: small tributary of Middle Prong of Little Pigeon R., at Richardsons Cove, Sevier Co. Just below 1100 ft. elev. TVA Map 164 SW.
- M37-908b Tennessee: Middle Prong, Little Pigeon R. at Richardsons Cove, Sevier Co. Just below 1100 ft. TVA Map 164 SW.
- M37-909 Tennessee: West Prong of Little Pigeon R., Sevier Co. At highway 71 crossing 2 mi. below Pigeon Forge. About halfway between Gatlinburg and Sevierville. Elev. 1100 ft. TVA Map 156 SE.
- M37-910 Tennessee: Little River, about 1/2 mi. below Camp LeConte (near Elkmont), Great Smoky Mt. National Park, Blount Co. Elev. 2050'. In and near large pool.
- M37-912 Tennessee: Laurel Cr., trib. to Little R., Blount Co. In Great Smoky Mts. National Park for about 1/2 mi. below lowest contact with E. road out of Cades Cove. Elev. about 1550 ft. below falls, about 1560' above falls.
- M37-913 Tennessee: Anthony Cr. (= Green Cr. on topographic map), Abrams Cr. system, Blount Co., Great Smoky Mts. National Park. Elev. 1800 ft.
- M37-914 Tennessee: Forge Cr. (called Mill Cr. by natives), trib. of Abrams Cr., Blount Co. Great Smoky Mts. Nat. Park. Elev. 1710 ft. (= Abrams Creek on topographic map).

- M37-915 Tennessee: Abrams Cr., just below mouth of Cove Cr., Great Smoky Mts. National Park, Blount Co. Head of Abrams Cr. gorge, W. end of Cades Cove. Elev. 1690 ft.
- M37-916 Tennessee: Anthony Cr. (= Green Cr.), trib. of Abrams Cr., through Cove Cr. (Little Tennessee R. system), Blount Co. Near E. end of Cades Cove, Great Smoky Mts. National Park. Elev. 1950 ft.
- M37-917 Tennessee: Abrams Cr., just below Abrams Falls, Great Smoky Mts. National Park, Blount Co. Elev. about 1310 ft. Trib. to Little Tennessee R.
- M37-918 Tennessee: Abrams Cr., above Abrams Falls, Great Smoky Mts. National Park, Blount Co. Trib. Little Tennessee R. Elev. about 1335 ft.
- M37-919 Tennessee: Carr Cr., trib. of Little R. from north, just above Kinzel Springs, Blount Co. Seined the lowest 1/8 mi. of creek. Elev. 1000 ft. TVA Map 148 NE
- M37-920 Tennessee: Little R., just above Kinzel Springs, 4 mi. below Townsend, Blount Co. Elev. 1000 ft. From mouth of Tipton (= Kinzel) Branch up.
- M37-921 Tennessee: Tipton (= Kinzel) Branch, trib. to Little R. from South, just above Kinzel Springs, 4 mi. below Townsend, Blount Co. Elev. 1010 ft.
- M37-922 Tennessee: Abrams Cr., nearly 1 mile above mouth into Little Tennessee R., Blount Co. Near Chilhowee, elev. 840 ft. About 1/4 mi. above and below mouth of Panther Creek.
- M37-923 Tennessee: Little Tennessee River at Calderwood, Blount Co. Bought to 927 from boys fishing with bank poles below Calderwood Dam. Elev. about 850 ft.
- M37-928a North Carolina: Twentymile Creek, just above mouth in Cheoah L., Swain Co. Elev. 1300 ft. Just inside Great Smoky Mts. National Park.
- M37-928b North Carolina: flooded mouth of Twentymile Creek in Cheoah L., Swain Co. Just outside Great Smoky Mts. National Park. Elev. 1280 ft.
- M37-929 North Carolina: north shore of Little Tennessee R., 1 mi. below Bushnell, Swain Co. Elev. 1440 ft. TVA Map 158 NE.
- M37-930 North Carolina: Forney Cr., at mouth into Tuckasegee R., Swain Co. Little Tennessee R. system. At village of Forney, near Bushnell. Elev. 1525 ft. TVA Map 158 NE.
- M37-931 North Carolina: Deep Creek, trib. of Tuckasegee R., near Bryson City, Swain Co. Lowest 1/4 mile of creek seined. Elev. 1740 ft. TVA Map 166 NW.
- M37-932 North Carolina: Oconaluftee R., just inside Cherokee Indian Reservation, on State Highway 19, Swain Co. Elev. about 1840 ft.
- M37-933 North Carolina: Oconaluftee R., about 1 1/2 mi. SW. of Ravensford, Great Smoky Mts. National Park, Swain Co. Elev. 1980 ft. TVA Map 166 NE.
- M37-934 a & b North Carolina: Oconaluftee R., about 1 mi. south of Ravensford, Great Smoky Mts. National Park, Swain Co. Elev. 1990 ft. TVA Map 166 NE.

M40-202 North Carolina: Sandhopper Cr., Small Creek, Haywood Co.
 at "Hatchery" in Haywood Co. near "Hatchery" (1940)

IDENTIFICATION OF SPECIMENS COLLECTED BY CARL L. HUBBS FAMILY 1940
 AND ASSISTANTS IN TENNESSEE AND NORTH CAROLINA

Specimens collected in JUNE, 1940

- M40-203 Tennessee: Little R., Sevier Co., Gr. Smoky Mts. Natl. Park. - At and near
 mouth of small tributary, at Metcalf Bottoms. Elev. 1675 ft. adult
 Hypentelium nigricans 4 yearling - June 17, 1940
 Notropis leuciodus 1 1/2 yr. of adult age, 1 yr. of adult age
 Notropis rubricroceus 31 half grown, 1 adult
 Notropis coecogenis 23 yearling - adult
 Notropis galacturus 26 yearling - adult
 Nocomis micropogon 52 young - adult
 Semotilus atromaculatus atromaculatus 5 young - half grown
 Campostoma anomalum anomalum 4 yearling - adult
 Rhinichthys atratulus obtusus 13 yearling - adult
 Cottus bairdii, new subsp. 1 adult
- M40-204 North Carolina: Raven Fork of Oconaluftee R., Cherokee Ind. Res., Swain Co.
 1 1/2 mi. below Big Cove School. Elev. about 2300 ft. TVA Map 165 SE
 Salmo gairdnerii irideus 2 young - half grown
 Hypentelium nigricans 18 young - adult
 Moxostoma duquesnii, new subsp. 4 yearlings - adult
 Rhinichthys cataractae 2 adults
 Nocomis micropogon 10 yearling - adult
 Notropis coecogenis 110 yearling - adult
 Notropis spectrunculus, new subsp. 78 yearling - adult
 Notropis ariommus telescopus 35 yearling - adult
 Notropis leuciodus 39 yearling - adult
 Campostoma anomalum subsp. 13 young / 1 yearling
 Poeciliichthys camurus 1 yearling / 2 adults
 Poeciliichthys gutsellii 11 half grown
 Micropterus dolomieu dolomieu 4 fingerlings / 1 yearling
 Cottus bairdii, new subsp. 14 half grown - adult
- M40-205 North Carolina: Jonathan Cr. (trib. of Pigeon R.) at and near mouth of Cove,
 Cr., Haywood Co. On St. Highway 284. TVA Map 174 SE. June 19, 1940
 Moxostoma duquesnii, new subsp. 2 young - half grown
 Hypentelium nigricans 12 young - adult
 Campostoma anomalum: anomalum x new subsp. 48 yearling - adult
 Rhinichthys cataractae 157 half grown - adult
 Rhinichthys atratulus obtusus 2 adults
 Notropis coecogenis 34 young - adult
 Notropis galacturus 22 half grown - adult
 Poeciliichthys camurus 1 adult female
 Poeciliichthys, new sp. 8 half grown - adult
 Ambloplites rupestris 2 half-grown - adult

M40-206a North Carolina: Cataloochee Cr., Great Smoky Mts. Nat. Park, Haywood Co.
At "Cataloochee" on topographic map. Elev. 2575'.

June 19, 1940

Hypentelium nigricans	2 yearling
Salmo gairdnerii irideus	7 yearling - small adult
Rhinichthys cataractae	15 yearling - adult
Rhinichthys atratulus obtusus	44 yearling - adult
Catostomus c. commersonnii	4 yearling - adult
Campostoma anomalum anomalum	59 yearling - adult

M40-206b North Carolina: lower 1/4 mi. of small spring-fed trib. from E. to Cataloochee Cr., opposite "Cataloochee," at elev. of 2575', Haywood Co., Gt. Smoky Mts. Nat. Park

June 19, 1940

Rhinichthys atratulus obtusus	yearling - adult
Catostomus c. commersonnii	several small yearling
Campostoma anomalum anomalum	1 small adult
Salvelinus fontinalis fontinalis	2 yearling

M40-207 North Carolina: Rough Fork of Cataloochee Cr. (Pigeon R. drainage), above Messer Fork, at elev. of 2980', Haywood Co., Great Smoky Mts. Nat. Park

June 20, 1940

Salmo gairdnerii irideus	3 yearling - small adult
Rhinichthys atratulus obtusus	24 young - adult
Rhinichthys cataractae	17 yearling - adult
Campostoma anomalum anomalum	7 yearling - adult

M40-208a North Carolina: Cataloochee Cr., about 1/2 mi. below mouth of Little Cataloochee Cr., Haywood Co. Gr. Smoky Mts. Natl. Park. Elev. 2425'

June 20, 1940

Salmo gairdnerii irideus	few young
Catostomus commersonnii commersonnii	28 yearling - half-grown
Hypentelium nigricans	5 yearling - adult
Rhinichthys atratulus obtusus	14 yearling - adult
Rhinichthys cataractae	few half grown - adult
Campostoma anomalum anomalum	56 yearling - adult

M40-208b North Carolina: lower end of small trib. from E., entering Cataloochee Cr., 1/2 mi. below Little Cataloochee Cr., Haywood Co. Gt. Smoky Mts. Nat. Park. Elev. 2425'.

June 20, 1940

Salmo gairdnerii irideus	1 young
Catostomus commersonnii commersonnii	several half-grown
Hypentelium nigricans	few small yearling
Rhinichthys atratulus obtusus	young - adult
Rhinichthys cataractae	few half-grown
Campostoma anomalum anomalum	young - adult
Desmognathus fusca	1 young
Desmognathus arizonae	1 young
Desmognathus aplocheilichthys	1 young
Desmognathus galacturus	1 young
Desmognathus radiatus	1 young
Desmognathus leucostictus	1 young

- M40-209 North Carolina: Pigeon R., in old channel near mouth of Painter Cr., about 1 mi. above Waterville power plant, Haywood Co. Elev. / 1500'
Hypentelium nigricans 1 young + 1 adult
Notropis galacturus 84 yearling - adult
Lepomis macrochirus macrochirus 1 yearling
Micropterus dolomieu dolomieu 2 young / 8 yearling
June 20, 1940
- M40-210a North Carolina: Big Cr. (= Mt. Guyot Cr.) at and above Gunter Fk., Haywood Co., Gr. Smoky Mts. Nat. Park. Trib. Big Pigeon R. Elev. 3200 ft.
Salvelinus fontinalis fontinalis 1 half-grown
Rhinichthys cataractae 2 half-grown
Salmo gairdnerii irideus 7 young - half grown
Campostoma anomalum anomalum 33 young - adult
June 21, 1940
- M40-210b North Carolina: 2 mouths of Gunter Fork (possibly different creeks), trib. of Big Cr., Gr. Smoky Mts. Natl. Park, Haywood Co. Elev. 3200'
Salmo gairdnerii irideus young - half grown
Campostoma anomalum anomalum young - adult
June 21, 1940
- M40-211 North Carolina: Big Cr., midway between Mt. Sterling and Waterville, about 1 mi. below Gr. Smoky Mts. Nat. Park line, Haywood Co. Near Tenn. line. Elev. about 1520'. TVA Map 173 SE.
Salmo gairdnerii irideus 1 half grown
Hypentelium nigricans 1 yearling
Rhinichthys cataractae 6 half-grown
Notropis galacturus 9 yearling - adult
Campostoma anomalum anomalum 19 yearling - adult
Cottus bairdii caroliniae 4 half-grown
June 21, 1940
- M40-212 Tennessee: Dunn Creek, just outside Gr. Smoky Mts. Nat. Park. Trib. E. Prong, Little Pigeon R., Sevier Co. TVA Map 164 SE.
Cottus bairdii, new subsp. 4 half grown - adult
Rhinichthys atratulus obtusus 67 half grown - adult
June 21, 1940
- M40-213 Tennessee: Cosby Cr., about 1 mi above mouth in Pigeon R., Cooke Co. TVA Map 173 SW. Elev. slightly less than 1200'.
Hypentelium nigricans 8 young - adult
Catostomus commersonii commersonii 1 young
Hybopsis amblops amblops 17 half-grown - adult
Erimystax, new sp. 3 young
Notropis ariommus telescopus 99 young - adult
Notropis spilopterus 1 subn. male
Notropis galacturus 35 large young - adult
Notropis cornutus chrysocephalus 4 adults
Notropis leuciodus 12 half-grown - adult
June 22, 1940

Notropis coccogenis
Notropis deliciosus stramineus
Campostoma anomalum anomalum
Notropis photogenis
Fundulus catenatus
Poeciliichthys rufilineatus
Poeciliichthys swannanoa
Ulocentra simotera
Etheostoma blennioides newmanii
Micropterus dolomieu dolomieu
Cottus bairdii carolinae

24 half-grown - adult
 6 half-grown
 21 young - adult
 20 half-grown - adult
 36 young - adult
 10 small - large young
 4 young - adult
 8 half-grown - adult
 5 half-grown - adult
 10 young - adult
 10 half-grown

M40-214 Tennessee: Cosby Cr., just inside boundary of Gt. Smoky Mts. Nat. Park,
 Cooke Co. Trib. to Pigeon R. Elev. 1850'

Notropis deliciosus stramineus
Notropis ariommus telescopus

June 22, 1940

Salmo gairdnerii irideus
Hypentelium nigricans
Notropis ariommus telescopus
Notropis rubricroceus
Rhinichthys cataractae
Rhinichthys atratulus obtusus
Campostoma anomalum anomalum
Cottus bairdii, new subsp.

1 yearling
 1 breeding male
 1 mature female
 13 half-grown - adult
 9 half-grown - adult
 5 yearling - adult
 16 yearling - adult
 2 adults

M40-218 Tennessee: Little Pigeon R., Sevier Co. On St. Highway 35, 2 mi. above
 Sevierville, at Birchfield Ford. Elev. 900'. TVA Map 156 SE.

June 24, 1940

Moxostoma erythrurum
Moxostoma duquesnii : new subsp. x *duquesnii*
Hypentelium nigricans
Nocomis micropogon
Hybopsis amblops amblops
Erimystax, new sp.
Rhinichthys atratulus obtusus
Notropis photogenis
Notropis micropteryx
Notropis volucellus volucellus
~~*Notropis coccogenis*~~
Notropis galacturus
Notropis spilopterus
Notropis cornutus chrysocephalus
Notropis leuciodus
Notropis ariommus telescopus
Campostoma anomalum anomalum
Fundulus catenatus
Hadropterus evides
Ulocentra simotera
Doration meadlae
Poeciliichthys rufilineatus
Etheostoma blennioides newmanii
Cottus bairdii carolinae
Micropterus dolomieu dolomieu
Ambloplites rupestris

17 yearling - adult
 3 yearling / 2 adults
 8 young - half-grown
 7 young - adult
 11 half-grown - adult
 2 half-grown / 1 adult
 1 young
 1 half-grown
 2 adults
 5 half-grown - adult
 15 young - adult
 26 young - adult
 25 young - adult
 5 half-grown - adult
 18 half-grown - adult
 15 half-grown - adult
 14 young - adult
 1 half-grown
 2 small adults
 8 half-grown - adult
 1 adult
 16 half-grown - adult
 1 half-grown
 12 young - adult
 12 young - adult
 3 half-grown - adult

M40-217 Tennessee: Walden Creek, trib. of West Prong of Little Pigeon R., near Gatlinburg, Sevier Co. Between 1st and 2nd bridges near mouth. Elev. about 1000'

June 23, 1940

<i>Nocomis micropogon</i>	7 half-grown - adult
<i>Hybopsis amblops amblops</i>	22 young - adult
<i>Notropis lirus</i>	3 half-grown - adult
<i>Notropis cornutus chrysocephalus</i>	24 yearling - adult
<i>Notropis coccogenis</i>	10 half-grown - adult
<i>Notropis spilopterus</i>	7 yearlings
<i>Notropis volucellus volucellus</i>	2 young - adult
<i>Notropis galacturus</i>	8 young - half-grown
<i>Notropis deliciosus stramineus</i>	1 yearling
<i>Notropis ariommus telescopus</i>	10 young - adult
<i>Campostoma anomalum anomalum</i>	10 young - small adult
<i>Doration meadiae</i>	2 adults
<i>Ulocentra simotera</i>	2 half-grown - adult
<i>Etheostoma blennioides newmanii</i>	1 young
<i>Ambloplites rupestris</i>	3 yearling / 1 adult
<i>Lepomis megalotis megalotis</i>	11 yearling - breeding adult
<i>Micropterus dolomieu dolomieu</i>	1 young / 1 yearling
<i>Hypentelium nigricans</i>	2 young
<i>Catostomus commersonii commersonii</i>	2 young
<i>Micropterus punctulatus punctulatus</i>	3 young - adult
<i>Moxostoma erythrurum</i>	9 yearling - half-grown

M40-221 Tennessee: Hesso Cr., just inside Gr. Smoky Mts. Natl. Park, Blount Co. Just below big bend.

June 25, 1940

<i>Hypentelium nigricans</i>	1 young / 2 yearlings
<i>Nocomis micropogon</i>	3 yearling - half-grown
<i>Notropis coccogenis</i>	13 yearling - adult
<i>Notropis galacturus</i>	22 yearling - adult
<i>Notropis ariommus telescopus</i>	7 young - adult
<i>Notropis leuciodus</i>	15 half-grown - adult
<i>Campostoma anomalum anomalum</i>	7 young - half-grown
<i>Fundulus catenatus</i>	2 half-grown - adult
<i>Ulocentra simotera</i>	20 half-grown - adult
<i>Poeciliichthys rufilineatus</i>	29 half-grown - adult
<i>Micropterus dolomieu dolomieu</i>	3 young - half-grown
<i>Cottus bairdii caroliniae</i>	2 large adults

M40-222 Tennessee: Middle Prong, Little R., Blount Co. Great Smoky Mts. National Park. Elev. 1225 ft.

June 25, 1940

<i>Hypentelium nigricans</i>	1 yearling / 1 large adult
<i>Salmo gairdnerii irideus</i>	1 half-grown
<i>Notropis galacturus</i>	5 half-grown - adult
<i>Notropis leuciodus</i>	4 half-grown
<i>Notropis coccogenis</i>	15 half-grown - adult
<i>Ambloplites rupestris</i>	1 adult
<i>Micropterus dolomieu dolomieu</i>	1 yearling
<i>Campostoma anomalum anomalum</i>	1 young

M40-223 Tennessee: Dunn Cr., at Jones Cove (at mouth of Yellow Breeches Cr., Co. Headwaters of E. Prong, Little Pigeon R. TVA Map 164 SE.

June 26, 1940

<i>Hypentelium nigricans</i>	1 young / 1 half-grown
<i>Moxostoma erythrurum</i>	1 half-grown
<i>Notropis coecogenis</i>	2 young / 4 half-grown - adult
<i>Notropis galacturus</i>	24 yearling - adult
<i>Notropis leuciodus</i>	8 half-grown - adult
<i>Notropis rubricroceus</i>	2 adults
<i>Notropis ariommus telescopus</i>	1 young / 5 adults
<i>Hybopsis amblops amblops</i>	1 young / 5 adults
<i>Nocomis micropogon</i>	2 half-grown
<i>Camptostoma anomalum anomalum</i>	15 young - adult
<i>Schilbeodes eleutherus</i>	1 half-grown
<i>Catnotus kennicotti</i> , new subsp.	1 subadult male
<i>Etheostoma blennioides newmanii</i>	1 half-grown
<i>Poeciliichthys rufilineatus</i>	4 adults
<i>Ulocentra simotera</i>	1 small adult
<i>Micropterus dolomieu dolomieu</i>	1 young / 1 yearling
<i>Cottus bairdii caroliniae</i>	11 young - adult

M40-224 Tennessee: Dunn Cr., just above Bradley Church, 3 mi. above Jones Cove, trib. E. Prong, Little Pigeon R., Sevier Co. TVA Map 164 SE.

June 26, 1940

<i>Catostomus commersonnii commersonnii</i>	4 young
<i>Hypentelium nigricans</i>	15 young - yearling
<i>Hybopsis amblops amblops</i>	1 half-grown
<i>Nocomis micropogon</i>	15 yearling - adult
<i>Rhinichthys cataraetae</i>	19 young - adult
<i>Rhinichthys atratulus obtusus</i>	6 half-grown - adult
<i>Semotilus atromaculatus atromaculatus</i>	2 yearlings
<i>Camptostoma anomalum anomalum</i>	44 young - adult
<i>Notropis leuciodus</i> x <i>Notropis rubricroceus</i>	2 half-grown - adult
<i>Notropis leuciodus</i>	75 yearling - mature adult
<i>Notropis rubricroceus</i>	72 yearling - mature adult
<i>Cottus bairdii</i> , new subsp.	1 young
<i>Notropis galacturus</i>	2 half-grown
<i>Notropis coecogenis</i>	50 yearling - adult
<i>Notropis ariommus telescopus</i>	25 yearling - adult
<i>Catnotus flabellaris flabellaris</i>	4 half-grown - mature adult
<i>Ulocentra simotera</i>	10 half-grown - adult
<i>Poeciliichthys rufilineatus</i>	3 half-grown - adult
<i>Poeciliichthys swannanoa</i>	5 half-grown - adult
<i>Etheostoma blennioides newmanii</i>	7 half-grown - adult
<i>Micropterus dolomieu dolomieu</i>	1 ripe female

M40-225 Tennessee: Cosby Cr., about 1/4 mi. above Large Church, about 5 mi. above mouth in Big Pigeon R., Cooke Co. TVA Map 173 SW

June 26, 1940

<i>Rhinichthys atratulus obtusus</i>	9 half-grown - small adult
<i>Hypentelium nigricans</i>	10 young - yearling

<i>Catostomus commersonnii commersonnii</i>	2 young / 1 yearling
<i>Campostoma anomalum anomalum</i>	9 young - yearling
<i>Rhinichthys cataractae</i>	12 young - adult
<i>Notropis galacturus</i>	4 young - yearling
<i>Notropis ariommus telescopus</i>	4 yearlings
<i>Notropis rubricroceus</i>	7 yearling - adult
<i>Ulocentra simotera</i>	6 half-grown - adult
<i>Etheostoma blennioides newmanii</i>	1 small adult
<i>Poeciliichthys swannanoa</i>	4 adults
<i>Poeciliichthys rufilineatus</i>	1 yearling / 4 adult females
<i>Cottus bairdii</i> , new subsp.	7 half-grown - adult

M40-226 North Carolina: Kephart Prong, Gr. Smoky Mts. Nat. Park, at U. S. Fish Hatchery, Swain Co. Trib. Oconaluftee R. Elev. 2850'

June 27, 1940

<i>Cottus bairdii</i> , new subsp.	18 half-grown - adult
<i>Rhinichthys cataractae</i>	18 yearling - adult
<i>Clinostomus</i> , new species	3 adults
<i>Nocomis micropogon</i>	1 subn. male
<i>Salmo gairdnerii irideus</i>	4 young - half-grown
<i>Salvelinus fontinalis fontinalis</i>	2 half-grown

M40-227 North Carolina: Beach Flats Prong of Oconaluftee R., below U. S. Fish Hatchery, Swain Co. Elev. 2800 ft. Gt. Smoky Mts. Nat. Park

June 27, 1940

<i>Cottus bairdii</i> , new subsp.	9 yearling - adult
<i>Campostoma anomalum</i> , new subsp.	4 adult
<i>Rhinichthys cataractae</i>	6 adults
<i>Nocomis micropogon</i>	2 subn. males
<i>Hypentelium nigricans</i>	1 large adult
<i>Salvelinus fontinalis fontinalis</i>	1 half-grown
<i>Salmo gairdnerii irideus</i>	2 young - half grown

M40-228 North Carolina: Richland Cr., 1/4 mi. below Lake Junaluska Dam at crossing of St. Highway 209, Haywood Co. Trib. Big Pigeon R. TVA Map 183 SW. Elev. 2550 ft.

June 28, 1940

<i>Cyprinus carpio</i>	4 young / 1 half-grown
<i>Notropis galacturus</i>	14 half-grown - adult
<i>Ambloplites rupestris</i>	1 small adult
<i>Lepomis megalotis megalotis</i>	3 yearlings
<i>Lepomis macrochirus macrochirus</i> x <i>Lepomis megalotis megalotis</i>	3 yearlings

M40-229 North Carolina: Richland Cr., about 2 mi. above Hazelwood, on U. S. Highway 19 and 23, Haywood Co. Trib. of Pigeon R. Elev. about 2800', TVA Map 175 NE

June 28, 1940

<i>Hypentelium nigricans</i>	8 young - half-grown
<i>Rhinichthys atratulus obtusus</i>	17 yearling - adult
<i>Rhinichthys cataractae</i>	26 half-grown - adult
<i>Campostoma anomalum</i> : <i>anomalum</i> x new subsp.	14 young - adult

M40-230 North Carolina: Scott Cr., trib. of Tuckasegee R., at U. S. Highway 19 and 23 crossing, about 1 mi. below Addie, Jackson Co. Elev. about 2200'

Hadropterus evides 1 adult female
Poeciliichthys camurus 1 half-grown
Salmo gairdnerii irideus 1 half-grown
Rhinichthys cataractae 19 half-grown - adult
Cottus bairdii, new subsp. 27 half-grown - adult

June 28, 1940

M40-231 North Carolina: Deep Cr., trib. of Tuckasegee R., in Gr. Smoky Mts. Natl. Park, just above Deep Creek School and 1/4 mi. below Tom Branch, Swain Co. Elev. 1840'

Salmo gairdnerii irideus 8 young - half-grown
Rhinichthys cataractae 11 young - adult
Nocomis micropogon 1 half-grown
Notropis coecogenis 3 half-grown - small adult
Campostoma anomalum, new subsp. 3 half-grown
Poeciliichthys camurus 4 half-grown - adult
Hadropterus evides 5 breeding adults
Clinostomus, new species 6 half-grown - adult
Cottus bairdii, new subsp. 15 half-grown - adult

June 29, 1940

M40-232a North Carolina: Noland Cr., at mouth in Tuckasegee R., Swain Co. At crossing of St. Highway 288. Elev. 1605'. TVA Map 158 NE

Semotilus atromaculatus atromaculatus 2 yearlings
Ambloplites rupestris 1 adult
Cottus bairdii, new subsp. 1 small adult
Hypentelium nigricans a few young
Nocomis micropogon some half-grown
Notropis galacturus 67 young - adult
Notropis leuciodus some half-grown
Notropis coecogenis 44 yearling - adult
Moxostoma duquesnii, new subsp. 10 young
Notropis spectrunculus, new subsp. 31 half-grown - adult
Poeciliichthys camurus 5 half-grown - adult
Micropterus dolomieu dolomieu 8 young - yearling

June 29, 1940

M40-232b North Carolina: Tuckasegee R., at mouth of Noland Cr., Swain Co. Elev. 1600' TVA Map 158 NE

Hypentelium nigricans yearling - adult
Nocomis micropogon young - adult
Notropis galacturus yearling - adult
Notropis leuciodus half-grown - adult
Notropis coecogenis yearling - adult
Moxostoma duquesnii, new subsp. 1 young / 1 yearling
Notropis spectrunculus, new subsp. half-grown - adult
Poeciliichthys camurus half-grown - adult
Micropterus dolomieu dolomieu 1 young / 1 yearling
Moxostoma erythrurum 1 adult
Erimystax monachus 2 half-grown

June 29, 1940

<i>Pilodictis olivaris</i>	1 half-grown
<i>Notropis photogenis</i>	1 young
<i>Hadropterus evides</i>	1 adult female
<i>Poeciliichthys zonalis zonalis</i>	1 half-grown
<i>Notropis ariommus telescopus</i>	1 young / 1 yearling

M40-233 North Carolina: Straight Fork of Raven Fork of Oconaluftee R., Gr. Smoky Mts. Nat. Park, 3 mi. by road above forks, Swain Co. Elev. 2900'

June 29, 1940

<i>Salmo gairdnerii irideus</i>	5 young / 1 half-grown
<i>Nocomis micropogon</i>	1 half-grown / 1 subn. male
<i>Rhinichthys cataractae</i>	1 subn. male
<i>Clinostomus</i> , new species	9 yearling - mature adult
<i>Cottus bairdii</i> , new subsp.	5 half-grown - adult

M40-234 Tennessee: Cosby Cr., at Radgett Mill, trib. of Pigeon R., Cooke Co.
TVA Map 173 SW

June 30, 1940

<i>Hypentelium nigricans</i>	10 yearling - adult
<i>Moxostoma duquesnii</i> , new subsp.	3 yearlings - / 2 half-grown
<i>Notropis galacturus</i>	27 yearling - adult
<i>Notropis coccogenis</i>	15 half-grown - adult
<i>Notropis ariommus telescopus</i>	55 young - adult
<i>Notropis deliciosus stramineus</i>	1 adult
<i>Notropis photogenis</i>	2 small adult
<i>Rhinichthys atratulus obtusus</i>	5 adults
<i>Camptostoma anomalum anomalum</i>	28 young - adult
<i>Erimystax</i> , new species	1 adult
<i>Phenacobius catostomus</i>	1 young / 1 adult
<i>Fundulus catenatus</i>	5 half-grown
<i>Hybopsis amblops amblops</i>	7 yearling - adult
<i>Poeciliichthys swannanoa</i>	6 adults
<i>Poeciliichthys rufilineatus</i>	14 yearling - mature adult
<i>Ulocentra simotera</i>	14 young - adult
<i>Etheostoma blennioides newmanii</i>	9 young - adult
<i>Ambloplites rupestris</i>	1 yearling
<i>Lepomis macrochirus macrochirus</i>	1 yearling
<i>Micropterus dolomieu dolomieu</i>	4 yearlings
<i>Cottus bairdii</i> : <i>carolinae</i> x new subsp.	9 young - adult

North Carolina: French Broad R., near mouth of Cane Cr., between Asheville and Brevard. Collected by Cowan Winkle

Spring, 1939

Esox masquinongy ohioensis

small adult skin

North Carolina: Raven Fork of Oconaluftee R., on Cherokee Indian Reservation, below mouth of Straight Fork. Collected by Cowan Winkle

Summer, 1939

Micropterus dolomieu dolomieu

1 head only