

Table 1
 Relative Abundance and Biomass of Fishes Collected from Various Streams ^{in 1976} _{on the Edwards Plateau}

| | Guadalupe River | | San Marcos River | | Blanco River | | Llano River | | San Saba River | |
|------------------------------------|-----------------|------|------------------|------|--------------|------|-------------|------|----------------|------|
| | %N | %Wt. | %N | %Wt. | %N | %Wt. | %N | %Wt. | %N | %Wt. |
| 1. <u>Lepisosteus osseus</u> | 0.6 | 37.4 | - | - | 0.3 | 8.7 | 0.2 | 6.2 | 0.5 | 1.5 |
| 2. <u>Dorosoma cepedianum</u> | 0.8 | 5.7 | 0.3 | 2.1 | 0.2 | 4.1 | 1.9 | 7.7 | 2.4 | 1.9 |
| 3. <u>Salmo gairdneri</u> | 0.1 | 0.8 | - | - | - | - | - | - | - | - |
| 4. <u>Astyanax mexicanus</u> | 2.3 | 1.2 | 0.2 | 0.2 | 2.1 | 1.5 | - | - | 0.5 | 0.1 |
| 5. <u>Ictiobus bubalus</u> | - | - | - | - | - | - | 1.5 | 12.9 | 0.3 | 0.7 |
| 6. <u>Moxostoma congestum</u> | 2.1 | 4.8 | 4.8 | 10.4 | 1.4 | 5.8 | 1.0 | 6.8 | 0.5 | 1.4 |
| 7. <u>Cyprinus carpio</u> | - | - | - | - | - | - | - | - | 0.2 | 75.9 |
| 8. <u>Carassius auratus</u> | - | - | 0.1 | 0.2 | - | - | - | - | - | - |
| 9. <u>Campostoma anomalum</u> | 4.7 | 1.1 | 0.6 | 0.2 | 2.1 | 0.9 | 0.5 | 0.2 | 0.2 | 0.01 |
| 10. <u>Notemigonus crysoleucas</u> | 0.2 | 0.1 | - | - | - | - | - | - | - | - |
| 11. <u>Hybopsis aestivalis</u> | 0.2 | 0.04 | 2.1 | 0.5 | 0.8 | 0.1 | - | - | - | - |
| 12. <u>Pimephales vigilax</u> | 0.5 | 0.1 | 7.4 | 2.2 | 0.3 | 0.1 | 0.9 | 0.2 | 5.5 | 0.1 |
| 13. <u>Dionda episcopa</u> | 0.1 | 0.03 | 1.2 | 1.0 | - | - | 13.2 | 2.8 | - | - |
| 14. <u>Notropis venustus</u> | 20.1 | 6.9 | 19.9 | 10.6 | 49.4 | 21.8 | 36.0 | 8.1 | 38.6 | 2.8 |
| 15. <u>N. lutrensis</u> | 2.3 | 0.6 | 10.9 | 3.4 | 1.6 | 0.3 | 0.2 | 0.04 | 3.4 | 0.2 |
| 16. <u>N. amabilis</u> | 7.9 | 1.4 | 8.2 | 2.7 | 11.3 | 2.2 | 4.0 | 0.4 | 6.2 | 0.2 |
| 17. <u>N. volucellus</u> | 1.6 | 0.2 | 1.4 | 0.2 | 2.9 | 0.3 | 1.3 | 0.1 | 1.4 | 0.03 |
| 18. <u>N. buchmanii</u> | - | - | 0.3 | 0.1 | - | - | - | - | - | - |
| 19. <u>Ictalurus natalis</u> | 0.1 | 0.1 | 0.2 | 0.1 | - | - | - | - | - | - |
| 20. <u>I. punctatus</u> | 0.8 | 0.7 | 1.6 | 0.7 | - | - | 0.1 | 1.0 | - | - |
| 21. <u>Fundulus kansae</u> | - | - | - | - | - | - | 0.1 | 0.02 | - | - |
| 22. <u>Zygonectes notatus</u> | - | - | 0.1 | 0.01 | 0.6 | 0.2 | - | - | - | - |
| 23. <u>Poecilia latipinna</u> | 0.3 | 0.02 | 2.1 | 0.8 | - | - | - | - | - | - |
| 24. <u>P. formosa</u> | - | - | 6.4 | 2.2 | - | - | - | - | - | - |
| 25. <u>Gambusia affinis</u> | 0.0 | 0.0 | 1.0 | 0.2 | 1.0 | 0.2 | 4.4 | 0.5 | 6.4 | 0.2 |
| 26. <u>G. geiseri</u> | - | - | 0.7 | 0.1 | - | - | - | - | - | - |
| 27. <u>Menidia beryllina</u> | 0.1 | 0.01 | - | - | - | - | 1.2 | 0.1 | - | - |
| 28. <u>Micropterus salmoides</u> | 1.0 | 2.2 | 1.5 | 3.2 | 2.8 | 5.9 | 2.3 | 7.0 | 2.2 | 2.7 |
| 29. <u>M. dolomieu</u> | 0.04 | 0.03 | - | - | - | - | - | - | - | - |
| 30. <u>M. punctulatus</u> | - | - | 1.1 | 1.4 | 0.3 | 0.8 | - | - | - | - |
| 31. <u>M. treculi</u> | 2.2 | 16.2 | 1.4 | 7.8 | 1.5 | 3.3 | 5.0 | 10.8 | 2.2 | 2.3 |
| 32. <u>Lepomis gulosus</u> | - | - | 0.1 | 0.7 | - | - | 0.1 | 0.04 | 0.5 | 0.3 |
| 33. <u>L. cyanellus</u> | 1.4 | 2.4 | 1.4 | 2.4 | 0.4 | 1.5 | 1.0 | 1.0 | 2.1 | 0.7 |
| 34. <u>L. punctatus</u> | - | - | 0.2 | 0.2 | - | - | - | - | - | - |
| 35. <u>L. auritus</u> | 2.0 | 6.0 | 2.1 | 3.8 | 8.6 | 20.6 | 10.5 | 12.3 | 3.3 | 2.2 |
| 36. <u>L. megalotis</u> | 6.8 | 6.1 | 2.1 | 3.9 | 5.2 | 12.4 | 5.4 | 6.2 | 12.6 | 5.5 |
| 37. <u>L. microlophus</u> | 0.6 | 1.9 | 0.6 | 2.2 | 0.2 | 0.6 | 0.5 | 4.3 | - | - |
| 38. <u>L. humilis</u> | - | - | 1.0 | 1.9 | - | - | 0.1 | 0.4 | 2.2 | 0.1 |
| 39. <u>L. macrochirus</u> | 1.2 | 0.8 | 12.4 | 7.9 | 3.0 | 3.2 | 5.6 | 3.5 | 3.1 | 1.0 |
| 40. <u>Pomoxis annularis</u> | - | - | 0.1 | 0.2 | - | - | 0.2 | 1.7 | - | - |
| 41. <u>Percina caprodes</u> | 0.4 | 0.4 | 0.4 | 0.5 | 0.6 | 0.7 | 0.9 | 0.5 | 0.7 | 0.1 |
| 42. <u>P. macrolepidia</u> | - | - | - | - | - | - | 0.1 | 0.02 | 0.2 | 0.01 |
| 43. <u>Hadropterus scierus</u> | - | - | 1.4 | 0.8 | - | - | - | - | - | - |
| 44. <u>Etheostoma spectabile</u> | 3.7 | 0.3 | 0.2 | 0.03 | - | - | 0.3 | 0.02 | 0.2 | 0.01 |
| 45. <u>E. lepidum</u> | 0.1 | 0.01 | - | - | - | - | 0.1 | 0.01 | 3.6 | 0.1 |
| 46. <u>E. fonticola</u> | - | - | 0.3 | 0.02 | - | - | - | - | - | - |
| 47. <u>Aplodinotus grunniens</u> | - | - | - | - | - | - | 0.2 | 3.0 | - | - |
| 48. <u>Cichlasoma cynoguttatum</u> | 0.2 | 1.1 | 3.3 | 24.3 | 1.6 | 3.9 | 0.9 | 2.2 | - | - |
| 49. <u>Sarotherodon mossambica</u> | - | - | 0.1 | 0.01 | - | - | - | - | - | - |
| Number of species | | 31 | | 38 | | 23 | | 31 | | 25 |
| Sample Size | | 1754 | | 1166 | | 1019 | | 1731 | | 581 |
| Number of collections | | 23 | | 7 | | 6 | | 10 | | 9 |
| Shannon Diversity Index (H') | | 3.79 | | 3.99 | | 2.84 | | 3.37 | | 3.36 |

1976 Report - #227
Renewed 1977 - #103

JAN 4 1977

REPORT FORM
SCIENTIFIC OR ZOOLOGICAL PERMIT ACTIVITIES

This form must be completed and submitted to the Texas Parks and Wildlife Department, John H. Reagan Building, Austin, Texas 78701, by the anniversary date of the permit. Renewal of this permit will not be considered prior to the Department's receiving this report.

If no activities were performed for which the permit was issued, complete only Section 1, sign this form and forward it as requested above.

Permittee: Robert J. Edwards Permit: (Period) 3/23/76- 1/1/77

(Type) Scientific

(Number) 227

Address: Dept. of Zoology Univ. of Texas at Austin Austin, Tx 78712

1. Permit not used for reasons as follows: _____

2. Renewal requested with the following revisions (use an attachment if necessary):

Please renew as currently issued

3. Purpose for renewal: Continuation of ichthyological studies on seasonal migrations and abundances of fishes.

4. Field work was performed (give map coordinates and co(s)): Central Texas _____ Counties, Texas.

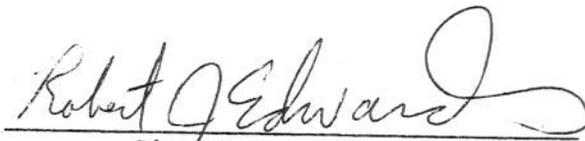
5. If Texas bands have been used, attach the banding information required by special instructions on State banding permits.

6. Attach a list of specimens which were killed or taken for permanent capture, broken down as follows:

| | <u>Common Name</u> | <u>Scientific Name</u> | <u>Number of Specimens</u> | | | |
|------------|--------------------------|------------------------|----------------------------|----|------------------|----|
| | | | <u>Adults</u> | | <u>Subadults</u> | |
| | | | ♂♂ | ♀♀ | ♂♂ | ♀♀ |
| Mammals | | | | | | |
| Birds | | | | | | |
| Amphibians | | | | | | |
| Reptiles | | | | | | |
| Fish | | | | | | |
| | Freshwater Vertebrates | (See Attached Page) | | | | |
| | Freshwater Invertebrates | | | | | |
| | Marine Vertebrates | | | | | |
| | Marine Invertebrates | | | | | |

Number of Specimens

Please attach any additional data or copies of reports or publications relative to activities for which this permit was issued.



 Signature of Permittee