

# **Appendix D**

## **Fish Index of Biotic Integrity Results**

**Table D1.** Fish species IBI ratings for stations in the Sand Hill River watershed with drainage areas less than 200 square miles.

Station Number	KC111		KC112		SHR412		SHR512	
Date	7/19/05		7/27/05		8/18/05		7/15/05	
Drainage Area (sq miles)	35.3		24.4		93.9		32.0	
Length of Station (m)	134		81		189		136	
Gear	Backpack E.F.		Backpack E.F.		Tow Barge E.F.		Tow Barge E.F.	
Sample Size	225		51		1,257		964	
Metric	Observed	Score	Observed	Score	Observed	Score	Observed	Score
<b>Sp. Richness and Composition</b>								
Number of species	13	5	10	5	14	5	15	5
Evenness	0.7693	3	0.914	5	0.701	3	0.599	1
Number of minnow species	7	5	5	5	7	5	7	5
Percent pioneer individuals	39.6	3	41.2	3	31.3	5	32.9	5
Percent headwater individuals	21.3	1	13.7	1	6.2	1	56.6	5
<b>Trophic Composition</b>								
Percent omnivore biomass	20.6	5	27.9	5	49.1	3	32.8	5
Percent insectivore biomass	79.4	5	72.1	5	50.1	3	67.2	5
<b>Reproductive Guild</b>								
Percent simple lithophilic	29.3	1	5.9	1	15.8	1	37.3	3
<b>Functional Guild</b>								
Percent tolerant individuals	68.9	1	78.4	1	73.6	1	54.4	3
Number of sensitive species	2	5	1	3	2	3	2	5
<b>Abundance and Condition</b>								
Number per meter	1.7	1	0.63	1	3.4	1	7.1	3
Percent DELT	0.5	5	0.5		0	5	0.5	
<b>Total IBI Score</b>	<b>40</b>		<b>39</b>		<b>36</b>		<b>50</b>	

**Table D1 (cont'd).** Fish species IBI ratings for stations in the Sand Hill River watershed with drainage areas less than 200 square miles.

<b>Station Number</b>	UK100	
<b>Date</b>	7/20/05	
<b>Drainage Area (sq miles)</b>	11.2	
<b>Length of Station (m)</b>	95	
<b>Gear</b>	Backpack E.F.	
<b>Sample Size</b>	167	
<b>Metric</b>	<b>Observed</b>	<b>Score</b>
<b>Sp. Richness and Composition</b>		
Number of species	7	5
Evenness	0.635	3
Number of minnow species	4	5
Percent pioneer individuals	58.7	3
Percent headwater individuals	25.1	3
<b>Trophic Composition</b>		
Percent omnivore biomass	84.5	1
Percent insectivore biomass	15.5	1
<b>Reproductive Guild</b>		
Percent simple lithophilic	16.2	1
<b>Functional Guild</b>		
Percent tolerant individuals	98.2	1
Number of sensitive species	2	5
<b>Abundance and Condition</b>		
Number per meter	1.75	1
Percent DELT	0	5
<b>Total IBI Score</b>	<b>34</b>	

**Table D2.** Fish species IBI ratings for stations in the Sand Hill River watershed with drainage areas from 200 to 1500 square miles.

<b>Station Number</b>	<b>SHR312</b>	
<b>Date</b>	<b>7/28/05</b>	
<b>Drainage Area (sq miles)</b>	<b>220.7</b>	
<b>Length of Station (m)</b>	<b>373</b>	
<b>Gear</b>	<b>Tow Barge</b>	
<b>Sample Size</b>	<b>826</b>	
<b>Metric</b>	<b>Observed</b>	<b>Score</b>
<b>Sp. Richness and Composition</b>		
Number of species	14	5
Evenness	0.758	3
Number of minnow sp	7	5
Number of benthic insectivore sp	5	3
<b>Trophic Composition</b>		
Percent piscivore biomass	0	1
Percent omnivore biomass	22.8	5
Percent insectivore biomass	77.2	5
<b>Reproductive Guild</b>		
Percent simple lithophilic	12.7	1
<b>Functional Guild</b>		
Percent tolerant individuals	64.9	1
Number of sensitive species	2	3
<b>Abundance and Condition</b>		
Number per meter	2.21	1
Percent DELT	0.5	5
<b>Total IBI Score</b>	<b>38</b>	