

**First** Add total # organisms

**2nd** Convert Each species Into Fraction

**3rd** Square Each Fraction + Add All Together

Species	#	Fraction	Squared Fraction
Mayflies ①	12	$\frac{12}{36}$	$= .11$
Dragonflies ②	8	$\frac{8}{36}$	$= .05$
Snails ③	10	$\frac{10}{36}$	$= .08$
Caddis flies ④	6	$\frac{6}{36}$	$= .03$
...			
	36		<b>.27</b>

Lower # = Higher Rate of Diversity

WITRB: 1 2

The Depth of Jackson Creek  
and the Diversity of AMI's

# species

Total Amount  
of Organisms

Simpson's  
Diversity Index

Species

① Step Add total # Organisms

② Find Fraction

③ Square each Fraction And Add All together

Snails	8	$\left(\frac{8}{31}\right)^2 = .07$
Dragonflies	4	$\left(\frac{4}{31}\right)^2 = .02$
Mayflies	6	$\left(\frac{6}{31}\right)^2 = .04$
Caddis flies	12	$\left(\frac{12}{31}\right)^2 = .15$
Stone flies	0	0 → 1
True Flies	1	$\left(\frac{1}{31}\right)^2 = .001$
	<u>31</u>	<div style="border: 1px solid black; padding: 5px; display: inline-block;">.281</div>