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Shinfa River Water and Aragonite Stable Isotope Data

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Tabor, Neil, "Shinfa River Water and Aragonite Stable Isotope Data" (2021). *Earth Sciences Research*. 1. https://scholar.smu.edu/hum_sci_earthsci_research/1

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Table 1. Stable hydrogen and oxygen isotope compositions of waters from the Shinfa River area as well calculated d-excess values and air temperature at the time of collection.

Sample Type	Date	Analysis	δD_{VSMOW}	$\delta^{18}O_{VSMOW}$	d-excess	T (°C)
<i>CO₂ equilibration measurements for $\delta^{18}O$ values, U-metal reduction for δD values</i>						
River	1/14/07	Manual	-	3.7	-	-
River	1/21/07	Manual	-	4.7	-	-
River	2/4/07	Manual	-	5.7	-	-
River	2/11/07	Manual	-	5.6	-	-
River	2/25/07	Manual	-	7.2	-	-
River	3/11/07	Manual	-	11.4	-	-
River	3/18/07	Manual	-	12.4	-	-
River	3/25/07	Manual	-	12.8	-	-
River	4/1/07	Manual	-	14.3	-	-
River	4/8/07	Manual	-	16	-	-
River	4/9/07	Manual	82.9	18.3	-63.5	-
River	4/15/07	Manual	-	19.7	-	-
River	4/22/07	Manual	88.1	19.7	-69.5	-
River	5/6/07	Manual	-	19.7	-	-
River	5/13/07	Manual	-	18.4	-	-
River	5/20/07	Manual	-	18.6	-	-
River	5/27/07	Manual	-	13.3	-	-
River	6/10/07	Manual	-	4	-	-
River	7/1/07	Manual	-	-0.9	-	-
River	7/15/07	Manual	-5.4	-2.2	12.2	-
River	7/29/07	Manual	-	-1.5	-	-
River	8/12/07	Manual	-	-1.6	-	-
River	8/19/07	Manual	-	-1.7	-	-
River	9/9/07	Manual	-4.2	-2	11.8	-
River	9/23/07	Manual	-	-0.32	-	-
River	10/14/07	Manual	-	0.1	-	-
River	10/21/07	Manual	-	0.45	-	-
River	11/9/07	Manual	-	-0.84	-	-
River	12/2/07	Manual	-	2.2	-	-
River	12/2/07	Manual	-	1.6	-	-
River	12/9/07	Manual	-	2.9	-	-
River	12/16/07	Manual	-	3.35	-	-
<i>Cavity-ringdown laser re-measurements of selected samples listed above</i>						
River	1/21/07	Laser	32.3	4.9	-6.9	-
River	2/4/07	Laser	33.6	5.7	-12	-
River	2/11/07	Laser	34.6	5.6	-10.2	-

River	2/13/07	Laser	28.3	3.9	-2.9	-
River	2/25/07	Laser	42.6	7.5	-17.4	-
River	3/11/07	Laser	58.7	11.4	-32.5	-
River	4/1/07	Laser	72.0	14.4	-43.2	-
River	4/8/07	Laser	74.6	15.4	-48.6	-
River	4/15/07	Laser	85.1	18.1	-59.7	-
River	4/22/07	Laser	95.1	19.6	-61.7	-
River	5/6/07	Laser	97.2	19.8	-61.2	-
River	5/13/07	Laser	91.8	18.5	-56.2	-
River	5/20/07	Laser	92.4	18.6	-56.4	-
River	5/27/07	Laser	68.9	13.4	-38.3	-
River	6/10/07	Laser	35.3	4.2	1.7	-
River	7/1/07	Laser	5.5	-0.7	11.1	-
River	7/15/07	Laser	-3.1	-2.0	12.9	-
River	7/22/07	Laser	-1.4	-2.0	14.6	-
River	7/29/07	Laser	4.4	-1.2	14	-
River	8/12/07	Laser	1.9	-1.4	13.1	-
River	8/19/07	Laser	0.0	-1.7	13.6	-
River	9/9/07	Laser	-0.9	-1.8	13.5	-
River	9/23/07	Laser	9.8	-0.3	12.2	-
River	10/21/07	Laser	14.3	0.6	9.5	-
River	11/9/07	Laser	17.2	1.2	7.6	-
River	12/2/07	Laser	20.9	2.4	1.7	-
River	12/2/07	Laser	18.3	1.6	5.5	-
River	12/9/07	Laser	21.5	2.8	-0.9	-
River	12/16/07	Laser	24.5	3.5	-3.5	-

Periodical water sample collection resumes after 2008 hiatus

River	1/10/09	Laser	15.8	1.0	7.8	-
River	1/28/09	Laser	34.4	5.9	-12.8	-
River	2/2/09	Laser	38	6.9	-17.2	-
River	2/8/09	Laser	38.3	6.6	-14.5	-
River	2/15/09	Laser	39.5	7.2	-18.1	-
River	2/22/09	Laser	49.2	9.5	-26.8	-
River	3/1/09	Laser	51.2	10.1	-29.6	-
River	3/8/09	Laser	48.6	9.7	-29	-
River	3/15/09	Laser	50	10.7	-35.6	-
River	3/22/09	Laser	63.1	13.4	-44.1	-
River	3/29/09	Laser	70.0	15.1	-50.8	-
River	4/5/09	Laser	79.5	18	-64.5	-
River	4/12/09	Laser	76.3	16.4	-54.9	-

River	4/19/09	Laser	63.5	13.2	-42.1	-
River	4/26/09	Laser	42.5	8.4	-24.7	-
River	5/3/09	Laser	66.3	13.8	-44.1	-
River	5/10/09	Laser	64.5	13.1	-40.3	-
River	5/17/09	Laser	66.2	13.6	-42.6	-
River	5/24/09	Laser	66.5	13.5	-41.5	-
River	6/7/09	Laser	36.4	4.3	2.0	-
River	6/21/09	Laser	4.0	-1.1	12.8	-
River	6/28/09	Laser	24.7	1.7	11.1	-
River	7/5/09	Laser	19.8	0.7	14.2	-
River	7/12/09	Laser	4.0	-1.4	15.2	-
River	7/19/09	Laser	-0.7	-1.9	14.5	-
River	7/26/09	Laser	1.1	-1.1	9.9	-
River	8/2/09	Laser	0.4	-1.5	12.4	-
River	8/16/09	Laser	18.6	0.8	12.2	-
River	8/16/09	Laser	13.8	0.8	7.4	-
River	8/21/09	Laser	11.9	-0.4	15.1	-
River	8/23/09	Laser	6.0	-0.9	13.2	-
River	8/30/09	Laser	8.3	-0.5	12.3	-
River	9/6/09	Laser	10.7	-0.8	17.1	-
River	9/20/09	Laser	13.0	0.0	13.0	-
River	9/27/09	Laser	20.1	0.9	12.9	-
River	10/4/09	Laser	20.7	1.0	12.7	-
River	10/11/09	Laser	18.3	1.0	10.3	-
River	10/18/09	Laser	19	1.2	9.4	-
River	10/25/09	Laser	18.3	1.4	7.1	-
River	11/2/09	Laser	23.1	2.3	4.7	-
River	11/8/09	Laser	30.0	4.6	-6.8	-
River	11/15/09	Laser	25.3	3.1	0.5	-
River	11/22/09	Laser	26.1	3.5	-1.9	-
River	12/1/09	Laser	30.5	4.6	-6.3	-
River	12/6/09	Laser	30.0	4.2	-3.6	-
River	12/13/09	Laser	33.3	5.0	-6.7	-
River	12/20/09	Laser	35.9	6.2	-13.7	-
River	1/13/10	Laser	24.9	3.3	-1.5	-
River	1/16/10	Laser	15.9	0.8	9.5	-
River	2/8/10	Laser	13.5	-0.2	15.1	45
River	2/26/10	Laser	24.7	4.1	-8.1	46
River	2/28/10	Laser	29.3	5.1	-11.5	40
River	3/7/10	Laser	60.1	12.1	-36.7	52

River	3/14/10	Laser	28.8	5.1	-12.0	48
River	3/21/10	Laser	47.4	9.6	-29.4	42
River	3/26/10	Laser	55.3	11.4	-35.9	34
River	4/4/10	Laser	74.9	15.7	-50.7	41
River	4/11/10	Laser	77.9	16.3	-52.5	43
River	4/18/10	Laser	80.7	17.5	-59.3	41
River	5/2/10	Laser	65.3	13.7	-44.3	40
River	5/9/10	Laser	45.1	9.11	-27.78	37
River	5/16/10	Laser	59.1	11.37	-31.86	39
River	5/30/10	Laser	34.8	5.8	-11.6	40
River	6/13/10	Laser	29.8	3.7	0.2	45
River	6/20/10	Laser	17.8	0.97	10.04	40
River	7/1/10	Laser	11.3	-0.4	14.5	25
River	7/9/10	Laser	3.9	-0.9	11.1	30
River	7/18/10	Laser	0.8	-1.4	12.0	40
River	7/23/10	Laser	-1.4	-1.9	13.8	26
River	7/30/10	Laser	-0.2	-1.6	12.6	40
River	8/8/10	Laser	15.04	0.64	9.92	45
River	8/17/10	Laser	2.35	-1.63	15.39	30
River	8/25/10	Laser	-3.88	-2.15	13.32	35
River	9/19/10	Laser	8.1	-0.8	14.5	30
River	9/30/10	Laser	-0.7	-0.7	4.9	27
River	10/3/10	Laser	0.8	0.8	-5.6	30
River	10/10/10	Laser	-0.9	-0.9	6.3	40
River	10/18/10	Laser	0.0	0.0	0.0	45
River	11/7/10	Laser	1.1	1.1	-7.7	50
River	11/15/10	Laser	5.8	-1.2	15.4	42
River	11/21/10	Laser	1.8	1.8	-12.6	50
River	11/28/10	Laser	2.2	2.2	-15.4	45
River	12/5/10	Laser	2.6	2.6	-18.2	50
River	12/11/10	Laser	2.9	2.9	-20.3	50
River	12/11/10	Laser	28.1	3.9	-3.1	40
River	12/12/10	Laser	28.3	3.5	0.3	40
River	1/16/11	Laser	31.5	4.5	-4.5	40
River	1/16/11	Laser	30.0	4.7	-7.6	40
River	1/19/11	Laser	31.9	4.3	-2.5	35
River	1/23/11	Laser	33.2	4.8	-5.2	46
River	1/23/11	Laser	31.6	4.8	-6.8	46
River	1/27/11	Laser	35.0	5.9	-12.2	43
River	1/27/11	Laser	35.1	5.8	-11.3	43

River	1/28/11	Laser	49.6	8.7	-20	43
River	1/30/11	Laser	36.6	5.6	-8.2	46
River	2/13/11	Laser	36.0	6.0	-12.0	47
River	2/13/11	Laser	34.5	5.4	-8.7	47
River	2/20/11	Laser	40.5	6.6	-12.3	41
River	2/20/11	Laser	0.6	-1.5	12.6	42
River	2/27/11	Laser	47.5	8.9	-23.7	43
River	3/13/11	Laser	52.5	9.8	-25.9	45
River	3/20/11	Laser	25.0	4.5	-11.0	47
River	3/27/11	Laser	56.2	11	-31.8	35
River	4/10/11	Laser	6.1	-0.3	8.5	45
River	4/17/11	Laser	6.8	0.0	6.8	41
River	4/24/11	Laser	68	13.9	-43.2	45
River	5/1/11	Laser	8.3	-0.2	9.9	46
River	5/8/11	Laser	2.1	-1.5	14.1	42
River	5/15/11	Laser	55.7	10.7	-29.9	44
River	5/29/11	Laser	-13.4	-3.0	10.6	28
River	6/5/11	Laser	9.8	-0.1	10.6	20
River	6/12/11	Laser	10.2	0.1	9.4	20
River	6/19/11	Laser	12.1	-0.1	12.9	23
River	6/26/11	Laser	17.5	1.0	9.5	21
River	7/3/11	Laser	9.2	-0.5	13.2	27
River	7/10/11	Laser	13.6	0.1	12.8	23
River	7/17/11	Laser	3.7	-1.2	13.3	30
River	7/24/11	Laser	10.0	-0.6	14.8	25
River	7/31/11	Laser	4.7	-1.3	15.1	27
River	8/7/11	Laser	3.3	-1.6	16.1	20
River	8/14/11	Laser	2.9	-1.5	14.9	20
River	8/21/11	Laser	4.4	-1.4	15.6	24
River	8/28/11	Laser	4.6	-1.2	14.2	23
River	9/4/11	Laser	4.9	-1.2	14.5	20
River	9/17/11	Laser	5.7	-0.9	12.9	27
River	9/24/11	Laser	11.0	-0.5	15.0	20
River	10/1/11	Laser	13.5	-0.1	14.3	26
River	10/6/11	Laser	35	5.6	-9.8	40
River	10/8/11	Laser	14.3	0.0	14.3	36
River	10/15/11	Laser	15.5	0.3	13.1	35
River	10/23/11	Laser	2.6	-1.6	15.4	42
River	10/29/11	Laser	15.6	0.9	8.4	40
River	11/5/11	Laser	18.9	1.4	7.7	20

River	11/12/11	Laser	6.2	-0.9	13.4	40
River	11/19/11	Laser	20.4	2.1	3.6	26
River	11/26/11	Laser	1.8	-1.7	15.4	17
River	12/3/11	Laser	25.8	3.0	1.8	25
River	12/10/11	Laser	25.5	3.3	-0.9	40
River	12/17/11	Laser	26.4	3.6	-2.4	30
River	12/24/11	Laser	29.2	4.1	-3.6	32
River	12/31/11	Laser	29.8	4.4	-5.4	20
River	1/7/12	Laser	30.9	4.5	-5.1	40
River	1/14/12	Laser	32.7	5.1	-8.1	35
River	2/4/12	Laser	42.2	7.3	-16.2	20
River	2/11/12	Laser	42.3	7.4	-16.9	25
River	2/18/12	Laser	63.3	12.8	-39.1	25
River	2/25/12	Laser	76.0	15.7	-49.6	35
River	3/4/12	Laser	87.7	18.6	-61.1	40
River	3/11/12	Laser	67.1	13.7	-42.5	42
River	3/18/12	Laser	74.1	15.0	-45.9	43
River	3/24/12	Laser	76.5	15.9	-50.7	40
River	4/1/12	Laser	83	17.2	-54.6	42
River	4/15/12	Laser	84.2	17.4	-55.0	43
River	4/22/12	Laser	60.2	12.8	-42.2	44
River	5/13/12	Laser	49.3	10.1	-31.5	35
River	5/20/12	Laser	46.6	9.1	-26.2	40
River	5/27/12	Laser	46.6	8.5	-21.4	34
River	6/3/12	Laser	21.7	2.5	1.7	27
River	6/10/12	Laser	13.9	0.9	6.7	26
River	6/24/12	Laser	12.8	-0.2	14.4	26
River	7/1/12	Laser	8.3	-1.0	16.3	25
River	7/8/12	Laser	5.9	-1.4	17.1	23
River	7/15/12	Laser	1.2	-1.8	15.6	22
River	7/29/12	Laser	3.1	-1.5	15.1	26
River	8/5/12	Laser	0.8	-1.6	13.6	23
River	8/10/12	Laser	1.9	-1.7	15.5	23
River	8/12/12	Laser	-1.6	-2.1	15.2	27
River	8/26/12	Laser	2.1	-1.6	14.9	24
River	9/2/12	Laser	3.1	-1.4	14.3	30
River	9/16/12	Laser	6.3	-1.2	15.9	21
River	9/23/12	Laser	16.1	0.0	16.1	25
River	9/30/12	Laser	15.8	-0.1	16.6	26
River	10/7/12	Laser	11.7	-0.1	12.5	30

River	10/14/12	Laser	12.9	-0.1	13.7	35
River	10/21/12	Laser	14.8	0.5	10.8	27
River	10/25/12	Laser	9.9	-0.6	14.7	27
River	10/28/12	Laser	16.5	0.9	9.3	27
River	11/11/12	Laser	10.1	-0.2	11.7	29
River	11/18/12	Laser	13.0	0.3	10.6	35
River	11/25/12	Laser	17.3	0.9	10.1	36
River	12/2/12	Laser	19.7	1.5	7.7	34
River	12/9/12	Laser	-0.2	-1.9	15.0	26
River	12/16/12	Laser	20.6	2.3	2.2	35
River	12/30/12	Laser	23.4	3.0	-0.6	35
River	1/13/13	Laser	26.5	3.6	-2.3	27
River	2/3/13	Laser	42.4	8.6	-26.4	40
River	2/10/13	Laser	45.5	9.5	-30.5	39
River	2/17/13	Laser	36.9	6.3	-13.5	40
River	2/24/13	Laser	52.4	11	-35.6	40
River	3/3/13	Laser	61.1	13.1	-43.7	40
River	3/10/13	Laser	70.9	14.9	-48.3	40
River	3/17/13	Laser	49.0	10.2	-32.6	41
River	3/24/13	Laser	75.9	17.0	-60.1	43
River	3/31/13	Laser	37	7.5	-23	41
River	4/14/13	Laser	41.6	8.8	-28.8	42
River	4/21/13	Laser	45.8	9.7	-31.8	42
River	4/28/13	Laser	49.1	10.9	-38.1	41
River	5/5/13	Laser	47.0	10.0	-33.0	41
River	5/12/13	Laser	49.8	10.4	-33.4	39
River	5/19/13	Laser	49.3	10.6	-35.5	35
River	5/26/13	Laser	48.0	7.8	-14.4	35
River	5/27/13	Laser	41.9	8.6	-26.9	39
River	6/2/13	Laser	31.8	4.9	-7.4	38
River	6/16/13	Laser	25.2	3.0	1.2	32
River	6/23/13	Laser	22.4	2.3	4.0	39
River	6/30/13	Laser	11.9	-0.4	15.1	37
River	7/7/13	Laser	16.2	0.2	14.6	37
River	7/14/13	Laser	7.7	-0.1	8.5	25
River	7/21/13	Laser	3.5	-0.6	8.3	34
River	7/28/13	Laser	6.9	0.0	6.9	36
River	8/4/13	Laser	-3.5	-1.5	8.5	27
River	8/11/13	Laser	3.5	-0.5	7.5	30
River	8/18/13	Laser	10.2	2.0	-5.8	27

River	8/25/13	Laser	2.1	-1.3	12.5	23
River	9/1/13	Laser	4.4	-1.0	12.4	20
River	9/15/13	Laser	11.4	0.2	9.8	32
River	9/22/13	Laser	23.7	0.9	16.5	34
River	10/6/13	Laser	17.4	0.6	12.6	39
River	10/13/13	Laser	11.3	0.4	8.1	38
River	10/20/13	Laser	9.0	-0.3	11.4	39
River	10/27/13	Laser	15.2	0.1	14.4	40
River	11/3/13	Laser	15.2	1.4	4.0	37
River	11/10/13	Laser	17.2	1.4	6.0	40
River	11/17/13	Laser	16.8	1.9	1.6	40
River	11/24/13	Laser	17.1	1.6	4.3	32
River	12/1/13	Laser	19.0	2.1	2.2	39
River	12/8/13	Laser	20.9	2.8	-1.5	37
River	12/15/13	Laser	23.5	3.2	-2.1	30
River	12/22/13	Laser	24.2	3.7	-5.4	40
River	12/29/13	Laser	26.5	4.1	-6.3	40
River	1/5/14	Laser	27	4.0	-5.0	40
River	1/12/14	Laser	3.0	-0.9	10.2	42
River	1/19/14	Laser	28.9	4.6	-7.9	39