

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 4/24/2021

Inspection Period: 4/18/2021 thru 4/24/2021



**US Army Corps
of Engineers**
Portland District

JD/WC Project-Fisheries
P.O. Box 823
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Phone: 541-506-7860

All JD Fishways are inspected twice per day during fish passage season, Mar. 1 - Nov. 30.
Additional and frequent monitoring, of the PLC displays in SMF Fisheries Office, as necessary.

John Day Dam	Inspection OOC	Criteria Limit	Total Number of Inspections: 14			Temperature: 50.4 F	Secchi: 5.5 Ft.
NORTH FISHWAY							
Exit differential	0	≤ 0.5'					
Exit Control weirs	0	High setting	High setting is normal				
Count station differential	0	≤ 0.3'					
Entrance differential	0	1.0' - 2.0'	AVG (Ft.)	1.6			
SOUTH FISHWAY							
Exit differential	0	≤ 0.5'					
Exit Control weirs	0	Mid setting	Mid setting is normal				
Count station differential	0	≤ 0.3'					
Weir crest depth (US gauge)	0	1.0' ± 0.1'					
South entrance differential	0	1.0' - 2.0'	AVG (Ft.)	1.2			
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	9.7			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.52			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.7			
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	9.3			
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	9.5			
JUVENILE PASSAGE							
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.6			
Submersible traveling screens	0	visual inspect	Next Visual Inspection 4/26-4/29				
Turbine trashrack drawdown	0	<1.5', wkly					
Vert barrier screen drawdown	0	<1.5', wkly					
Spill volume	0	per FPP	AVG (kcfs)	82.8	Avg %	53.1	
Spill pattern	0	per FPP					
Turbine Unit Priority	0	per FPP					
Turbine 1% Efficiency	0	per FPP					

Fisheries Related Operations

Smolt Monitoring Operations:

Smolt Monitoring Facility concluded early morning sampling and resumed sampling every other day for condition monitoring. 55 juvenile lamprey were collected during early morning sampling efforts (7 sampling days).

Adult Ladder Operations:

Log boom at the south fish ladder exit removed following a east wind event. The boom will need to be repaired and the estimated time is 2-3 weeks.

A temporary log boom will be installed while the other boom is being repaired. SFL went to orifice flow 4/19 pm and was dewatered at 0900 on 4/20/21 for debris removal. 1 adult chinook, 4 suckers, and 5 small mouth bass were salvaged from the ladder and safely returned to the river. The ladder was cleared of debris and RTS at 1430 on 4/20/21.

Project Operations:

Current outages: MU5-8 (Line 2 BPA MOD work), MU7, MU8, MU12, MU16. Spring spill started on April 10 with TSW's installed.

Tailwater Average Weekly TDG: 115.7

Maintenance:

JD North Fishway's pump 4 has been pulled for maintenance (RTS to be determined). Spillbay #10 will be operated manually until further notice.

Calibration - All gauges within the 0.3' criteria.

Bird Data:

Slight decline in presence of cormorants-mainly seen resting on towers in PHFB. Gull numbers starting to increase. Pelican numbers are starting to increase on Preacher's Island. Significant increase in Grebes in PHFB. (see 'Bird Graph' tab for details). USDA Hazing started

1 of 125 avian lines down, will need to be replaced

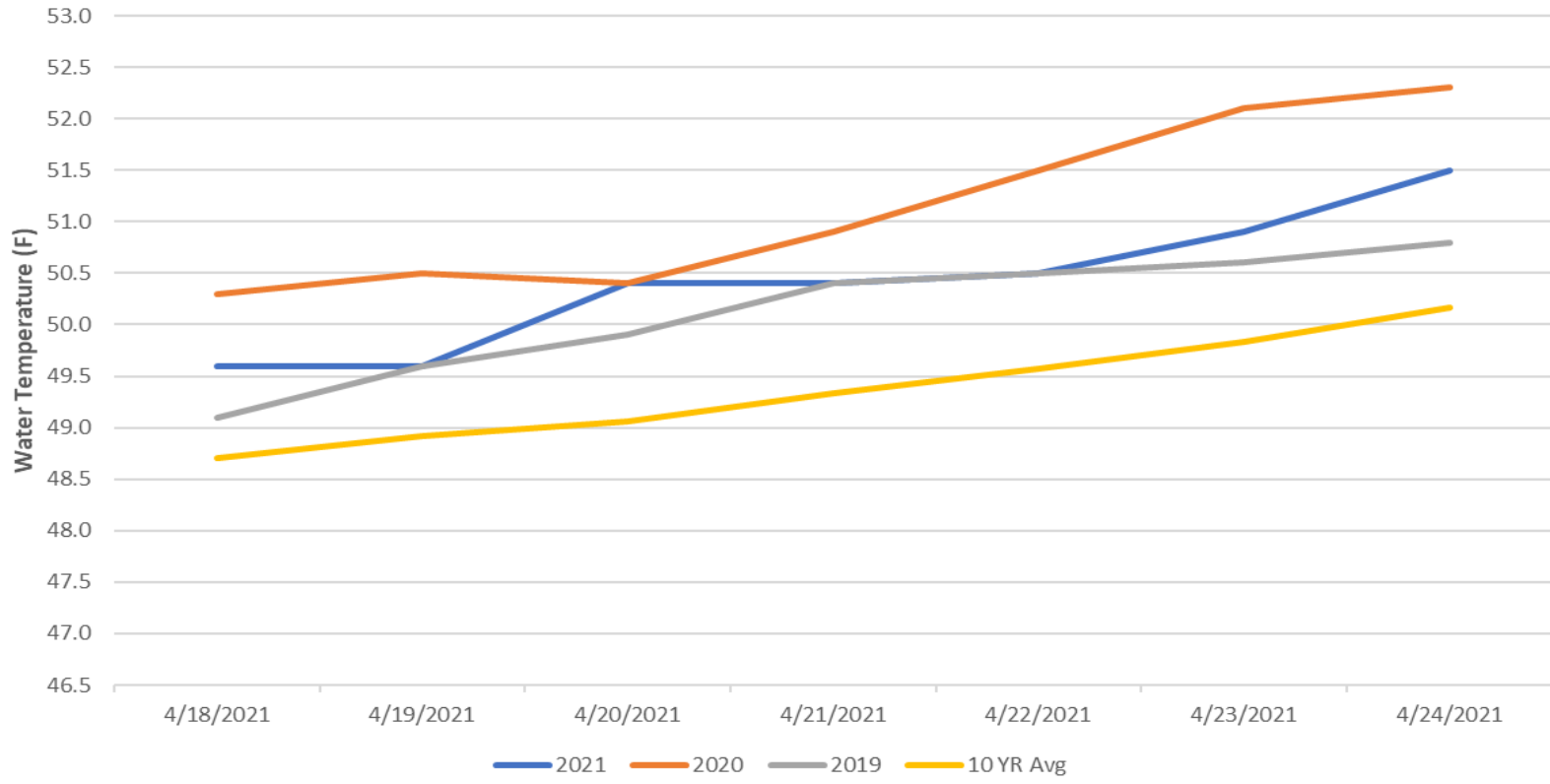
Pelicans on Preacher's Island: averaged 5 per day

Research:

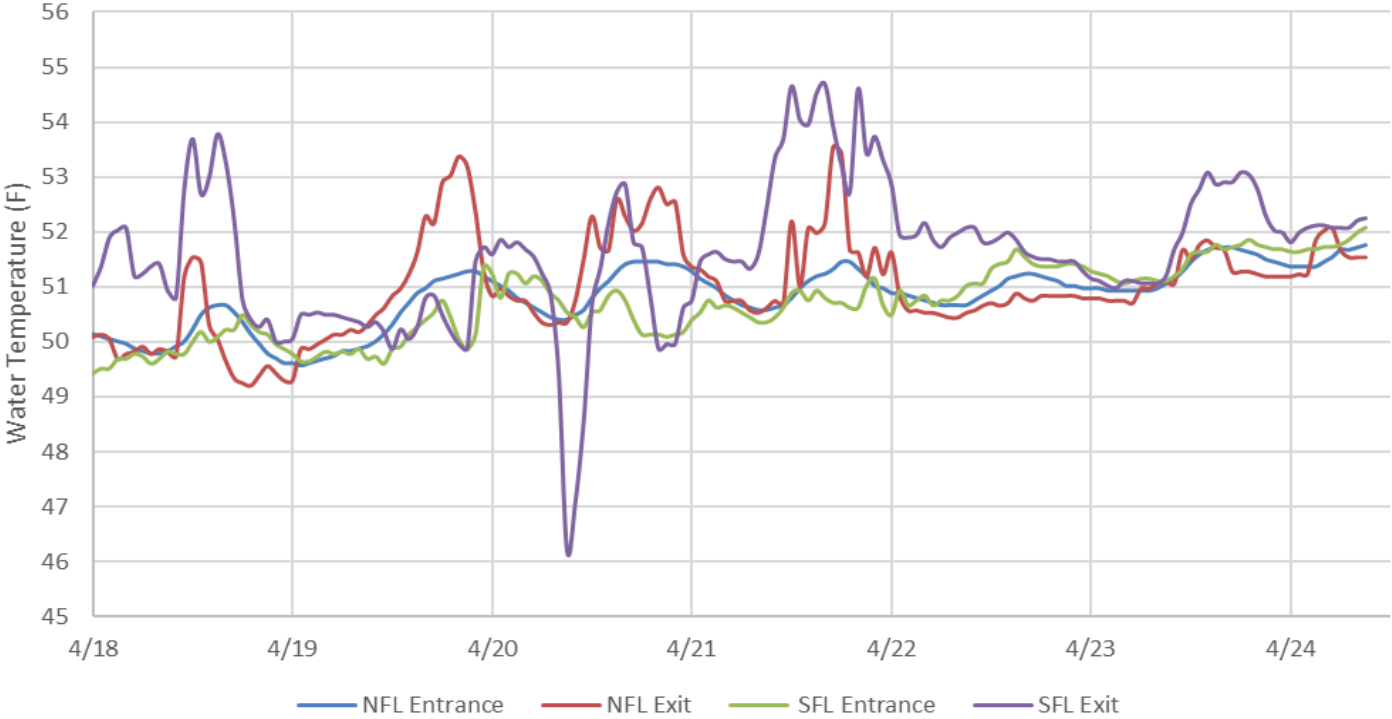
PSMFC Juvenile lamprey genetic work continues

Approved by: Brett Call, OPM

John Day Dam Water Temperatures (F)



Water Temperatures of JDA Fish Ladders (4/18 - 4/24)



JDA Collection Channel Velocity

FPP Criteria: 1.5–4.0 feet per second (2 fps optimum)

Date	Measurement Location	Speed (ft/sec)	SFL Turbine RPMs (1,2,3)	Bay 19 TW (ft)
4/18/2021	Unit 4	2.05	0,68,68	159.4
4/18/2021	Unit 12	2.64	0,68,68	159.4
4/23/2021	Unit 4	2.58	0,68,68	160.1
4/23/2021	Unit 12	2.69	0,68,68	160.1
4/24/2021	Unit 4	2.56	0,68,68	160.6
4/24/2021	Unit 12	2.60	0,68,68	160.6

Average Weekly Velocity (ft/sec)	2.52
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JOHN DAY WEEKLY AVERAGES

	NE1 (Ft)	NE2 (Ft)	S.Ent (Ft)	SE1 (Ft)	N.Ent (Ft)	JBS Diff (Ft)	Bay19 (Ft)	Spill Vol. (kcfs)	Spill %	# Spillbays
Sunday	8.7	8.9	1.1	9.4	1.6	4.5	1.8	80.0	60.8	19
Sunday	8.8	9.0	1.1	9.5	1.5	4.5	1.8	41.7	34.3	15
Monday	9.1	9.3	1.3	9.3	1.3	4.6	1.8	45.0	36.1	19
Monday	oos	oos	oos	oos	1.7	4.6	oos	90.0	63.3	19
Tuesday	oos	oos	oos	oos	1.7	4.5	oos	89.0	63.5	19
Tuesday	9.0	9.2	1.3	9.4	1.6	4.6	1.6	89.1	62.9	19
Wednesday	9.3	9.5	1.3	9.7	2.0	4.6	1.6	53.1	32.3	18
Wednesday	10.3	10.5	1.2	9.3	1.6	4.6	1.2	115.1	67.9	19
Thursday	9.3	9.5	1.3	9.5	1.5	4.6	1.7	116.0		19
Thursday	9.5	9.7	1.2	10.0	1.4	4.6	1.8	51.0	32.3	18
Friday	9.4	9.6	1.2	10.0	1.4	4.6	1.7	48.0	32.0	17
Friday	8.8	9.0	1.1	9.6	1.8	4.6	1.9	98.0	65.5	18
Saturday	9.9	10.1	1.1	10.1	1.5	4.5	1.8	120.0	69.5	18
Saturday	9.7	9.9	1.1	10.1	1.5	4.5	1.4	122.9	70.1	18
AVG:	9.3	9.5	1.2	9.7	1.6	4.6	1.7	82.8	53.1	18.2

	Temp (F)	Secchi (Ft)	Fallbacks	Pelicans on Island
Sunday	49.6	5.0	N/A	2
Monday	49.6	6.0	3	9
Tuesday	50.4	5.5	N/A	7
Wednesday	50.4	5.5	9	
Thursday	50.5	5.5	N/A	
Friday	50.9	5.5	0	1
Saturday	51.5	5.5	N/A	5

AVG	50.4	5.5	4	5
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John Day Dam
Avian Zones



JDA Bird Counts: 4/18/21 to 4/24/21

F(1): Forage AM survey F(2): Forage PM Survey NF(1): Non-Forage AM Survey NF(2): Non-Forage PM Survey

Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Bald Eagle				Total	
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)		
18-Apr	PHFB	1	0	0	0	0	1	21	11	0	0	0	0	0	0	0	0	30	30	0	0	0	0	0	0	94	
18-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
18-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
18-Apr	PH2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		4
18-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
18-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
18-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
18-Apr	SW3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		5
Avg/Survey		5		0		1		16		0		0		0		0		30		0		0		0			52
19-Apr	PHFB	0	0	0	0	0	0	16	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	
19-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
19-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
19-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
19-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
19-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
19-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
19-Apr	SW3	3	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0		7
Avg/Survey		3		0		0		14		0		0		1		0		0		0		0		0			17
20-Apr	PHFB	0	0	15	0	0	0	26	12	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	63	
20-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
20-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
20-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
20-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0		3
20-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
20-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
20-Apr	SW3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		3
Avg/Survey		2		8		0		19		0		0		2		0		5		0		0		0			35
21-Apr	PHFB	0	0	0	0	0	0	18	7	0	0	0	0	0	0	0	0	41	27	0	0	0	0	0	0	93	
21-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
21-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
21-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
21-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
21-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
21-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
21-Apr	SW3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2
Avg/Survey		1		0		0		13		0		0		0		0		34		0		0		0			48

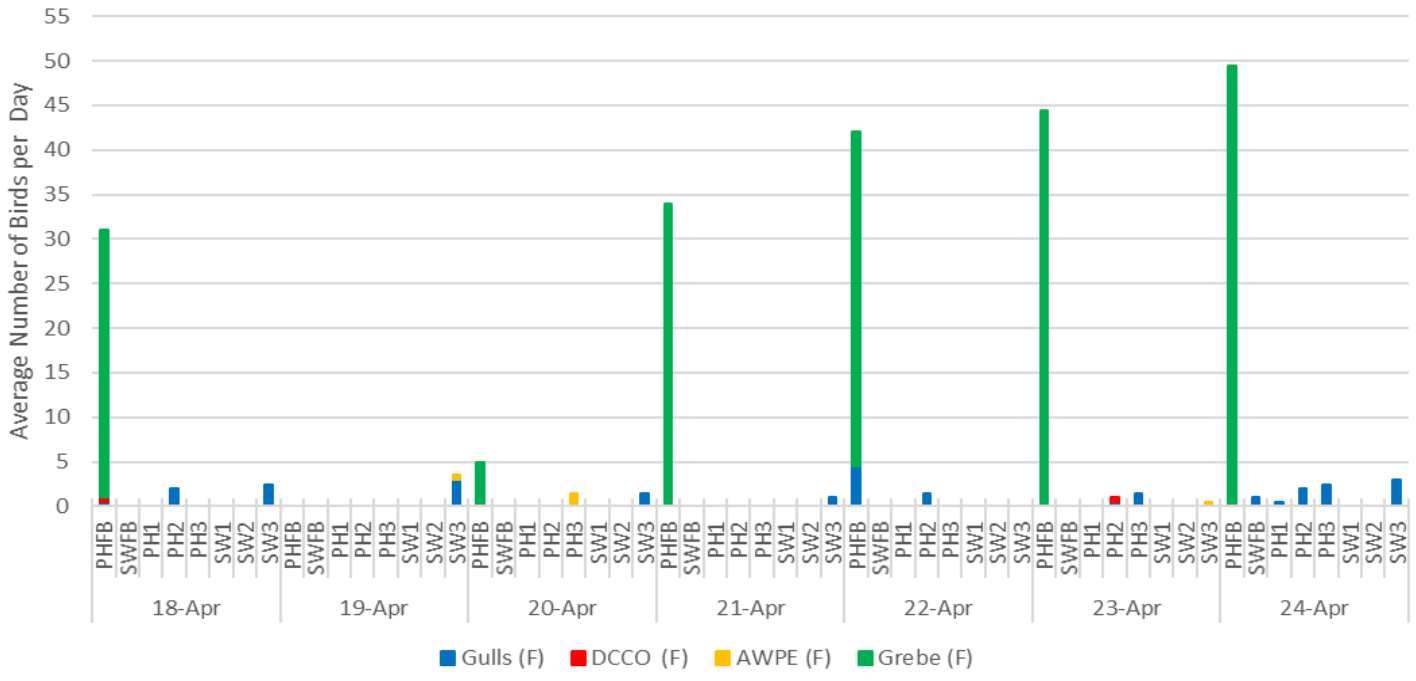
JDA Bird Counts: 4/18/21 to 4/24/21

NF(1): Non-Forage AM Survey NF(2): Non-Forage PM Survey

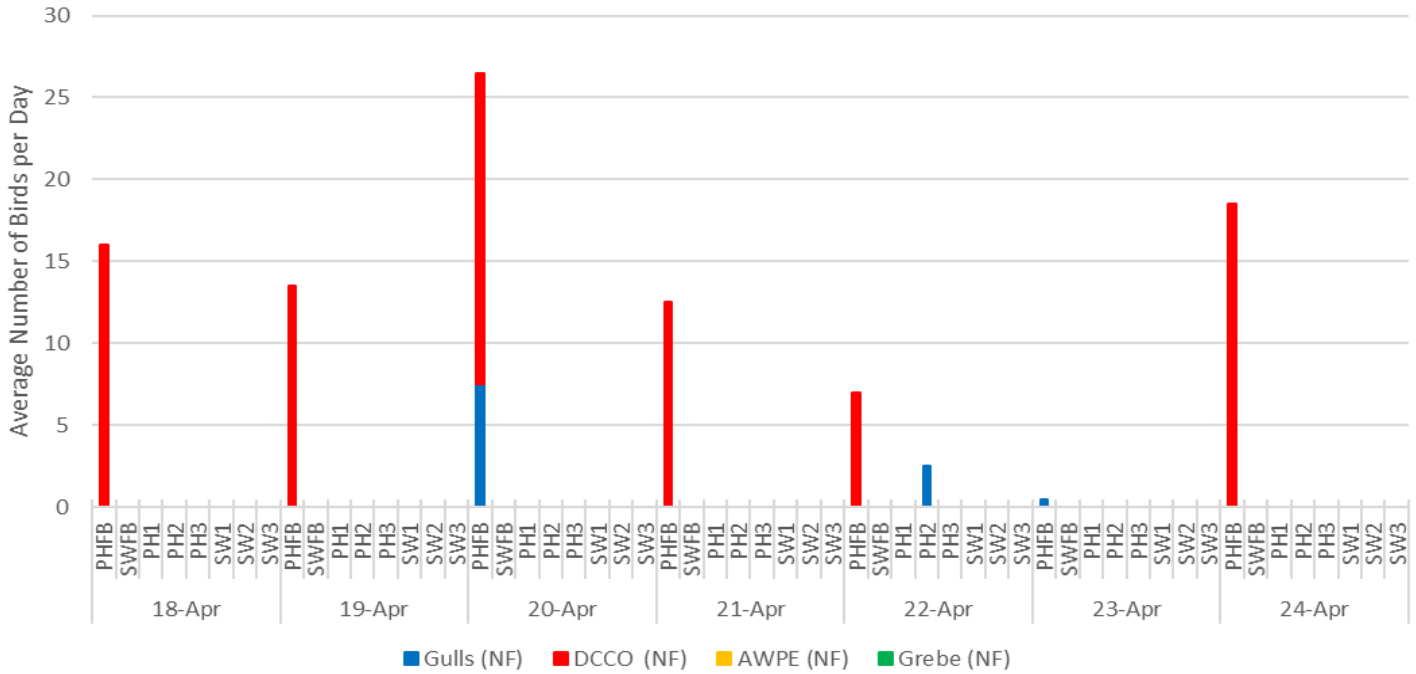
Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Bald Eagle				Total	
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)		
22-Apr	PHFB	9	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	39	36	0	0	0	0	0	0	0	98
22-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Apr	PH2	0	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
22-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Apr	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		6	3	0	0	0	7	0	0	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	0	53	
23-Apr	PHFB	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	47	42	0	0	0	0	0	0	0	0	90
23-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Apr	PH2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
23-Apr	PH3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
23-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Apr	SW3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Avg/Survey		2	1	1	0	1	0	0	0	0	0	0	1	0	0	45	0	0	0	0	0	0	0	0	0	48	
24-Apr	PHFB	0	0	0	0	0	0	19	18	0	0	0	0	0	0	0	48	51	0	0	0	0	0	0	0	0	136
24-Apr	SWFB	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
24-Apr	PH1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
24-Apr	PH2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
24-Apr	PH3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
24-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Apr	SW3	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Avg/Survey		9	0	0	0	0	19	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	77	

Totals	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Bald Eagle				Total
	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF			
Weekly Total	55	21	2	173	0	0	0	0	5	0	401	0	0	0	0	0	0								
Avg/Survey	4	2	0	12	0	0	0	0	0	0	29	0	0	0	0	0									

Foraging Avian Observations



Non-Foraging Avian Observations





Debris mat in SFL



Temporary SFL log boom