

Ballard Locks Sea Lion Observations During the Winter Steelhead Run 1997-2001

1997

Observer Coverage

Start/End Dates of observer coverage: **12/30/96 - 06/08/97**
 Number of days observed per week: Jan- **5.2**, Feb- **6.75**, Mar- **6.75**, Apr- **7**, May- **6.75**, Jun- **6**
 Average hrs per day: Jan- **7.71**, Feb- **7.3**, Mar- **7.5**, Apr- **7.8**, May- **7.57**, Jun- **n**
 Total hours of observation: **12/30/96 - 06/08/97 - 1143.73 hrs**
 Total core hours of observation: **01/15/97 - 05/15/97 - 880.65 hrs**

Sea Lion Presence (Inner Bay)

Maximum number of sea lions observed in one day: **3**
 Maximum number of sea lions observed in one day in January: **1**
 Maximum number of sea lions observed in one day in February: **1**
 Maximum number of sea lions observed in one day in March: **2**
 Maximum number of sea lions observed in one day in April: **3**
 Maximum number of sea lions observed in one day in May: **2**
 Maximum number of sea lions observed in one day in June: **0**

Total days that sea lions were observed: **12/30 - 06/08** **34**
 Total core days that sea lions were observed: **01/15 - 05/15** **31**
 Number of days that sea lions were observed in December: **0**
 Number of days that sea lions were observed in January: **3, 1 core**
 Number of days that sea lions were observed in February: **1**
 Number of days that sea lions were observed in March: **8**
 Number of days that sea lions were observed in April: **17**
 Number of days that sea lions were observed in May: **5, 4 core**

Total hours of sea lion presence: **12/30 - 06/08** **45.84**
 Total core hours of sea lion presence: **01/15 - 05/15** **45.62**
 Number of hours that sea lions were observed in December: **0**
 Number of hours that sea lions were observed in January: **0.14, 0.066 core**
 Number of hours that sea lions were observed in February: **0.17**
 Number of hours that sea lions were observed in March: **7.86**
 Number of hours that sea lions were observed in April: **33.87**
 Number of hours that sea lions were observed in May: **3.80, 3.65 core**

Total core sea lion presence/Total core hours of observed: **(45.62÷880.65) 0.0518**

Total hours of branded sea lion presence: **12/30 - 06/08** **3.31**
 Total core hours of branded sea lion presence: **01/15 - 05/15** **0**

Breakdown by brand & by month:

Sea Lion Id.	Dec	Jan	Feb	Mar	Apr	May	Jun
#302	***	***	***	0.78	***	***	***
#375	***	***	***	3.23	***	***	***

1998

Observer Coverage

Start/End Dates of observer coverage: **01/05/98 - 06/03/98**
Number of days observed per week: Jan- 5, Feb- 7, Mar 6.5, Apr- 6.5, May- 5.25, Jun- 3
Average hrs per day: Jan- 6.1, Feb- 7.6, Mar- 7.7, Apr- 6.8, May- 6.5, Jun- 8.4
Total hours of observation: **01/05/98 - 06/03/98 - 910.89 hrs**
Total core hours of observation: **01/15/98 - 05/15/98 - 798.69 hrs**

Sea Lion Presence (Inner Bay)

Maximum number of sea lions observed in one day: **2**
Maximum number of sea lions observed in one day in January: **2**
Maximum number of sea lions observed in one day in February: **1**
Maximum number of sea lions observed in one day in March: **2**
Maximum number of sea lions observed in one day in April: **1**
Maximum number of sea lions observed in one day in May: **1**
Maximum number of sea lions observed in one day in June: **0**

Total days that sea lions were observed: **01/05 - 06/03** **14**
Total core days that sea lions were observed: **01/15 - 05/15** **12**
Number of days that sea lions were observed in January: **2, 1 core**
Number of days that sea lions were observed in February: **2**
Number of days that sea lions were observed in March: **5**
Number of days that sea lions were observed in April: **4**
Number of days that sea lions were observed in May: **1, 0 core**

Total hours of sea lion presence: **01/05 - 06/03** **4.19**
Total core hours of sea lion presence: **01/15 - 05/15** **4.01**
Number of hours that sea lions were observed in January: **0.5, .32 core**
Number of hours that sea lions were observed in February: **0.36**
Number of hours that sea lions were observed in March: **2.68**
Number of hours that sea lions were observed in April: **0.43**
Number of hours that sea lions were observed in May: **0.22**

Total core sea lion presence/Total core hours observed: **(4.01÷798.69)** **0.0050**

Total hours of branded sea lion presence: **01/05 - 06/03** **0.75**
Total core hours of branded sea lion presence: **01/15 - 05/15** **0.75**

Breakdown by brand & by month:

Sea Lion Id.	Jan	Feb	Mar	Apr	May	Jun
#386	***	***	0.75	***	***	***

1999

Observer Coverage

Start/End Dates of observer coverage: **01/15/99 - 06/10/99**
Number of days observed per week: Jan- 2, Feb- 2.75, Mar- 3.8, Apr- 3.75, May- 3, Jun- 5
Average hrs per day: Jan- 7.2, Feb- 7.7, Mar- 7.9, Apr- 7.5, May- 7.1, Jun- 7.3
Total hours of observation: **01/15/99 - 06/10/99 - 461.12 hrs**
Total core hours of observation: **01/15/99 - 05/15/99 - 409.25 hrs**

Sea Lion Presence (Inner Bay)

Maximum number of sea lions observed in one day: **2**
Maximum number of sea lions observed in one day in January: **0**
Maximum number of sea lions observed in one day in February: **2**
Maximum number of sea lions observed in one day in March: **1**
Maximum number of sea lions observed in one day in April: **2**
Maximum number of sea lions observed in one day in May: **1**
Maximum number of sea lions observed in one day in June: **0**

Total days that sea lions were observed: **01/15 - 06/10** **9**
Total core days that sea lions were observed: **01/15 - 05/15** **9**
Number of days that sea lions were observed in January: **0**
Number of days that sea lions were observed in February: **1**
Number of days that sea lions were observed in March: **1**
Number of days that sea lions were observed in April: **6**
Number of days that sea lions were observed in May: **1**
Number of days that sea lions were observed in June: **0**

Total hours of sea lion presence: **01/15 - 06/10** **1.98**
Total core hours of sea lion presence: **01/15 - 05/15** **1.98**
Number of hours that sea lions were observed in January: **0.0**
Number of hours that sea lions were observed in February: **0.2**
Number of hours that sea lions were observed in March: **0.1**
Number of hours that sea lions were observed in April: **1.65**
Number of hours that sea lions were observed in May: **0.03**
Number of hours that sea lions were observed in June: **0.0**

Total sea lion presence/Total hours observed: **(1.98÷409.25)** **0.0048**

Total hours of branded sea lion presence: **01/15 - 06/10** **0**
Total core hours of branded sea lion presence: **01/15 - 05/15** **0**

Breakdown by brand & by month:

No branded sea lions were observed in the inner bay during the 1999 season.

2000

Observer Coverage

Start/End Dates of observer coverage:	01/18/00 - 05/31/00
Number of days observed per week:	Unavailable
Average hrs per day:	Unavailable
Total hours of observation:	01/18/00 - 05/31/00 - 418.5 hrs
Total core hours of observation:	01/15/99 - 05/15/99 - Unavailable

Sea Lion Presence (Inner Bay)

Maximum number of sea lions observed in one day:	2	
Maximum number of sea lions observed in one day in January:	2	
Maximum number of sea lions observed in one day in February:	1	
Maximum number of sea lions observed in one day in March:	0	
Maximum number of sea lions observed in one day in April:	0	
Maximum number of sea lions observed in one day in May:	0	
Maximum number of sea lions observed in one day in June:	0	
Total days that sea lions were observed:	01/18 - 05/31	2
Total core days that sea lions were observed:	01/15 - 05/15	2
Number of days that sea lions were observed in January:	1 core	
Number of days that sea lions were observed in February:	1 core	
Number of days that sea lions were observed in March:	0	
Number of days that sea lions were observed in April:	0	
Number of days that sea lions were observed in May:	0	
Number of days that sea lions were observed in June:	0	
Total hours of sea lion presence:	01/18 - 05/31	1.05
Total core hours of sea lion presence:	01/15 - 05/15	1.05
Number of hours that sea lions were observed in January:	0.58 core	
Number of hours that sea lions were observed in February:	0.47 core	
Number of hours that sea lions were observed in March:	0.0	
Number of hours that sea lions were observed in April:	0.0	
Number of hours that sea lions were observed in May:	0.0	
Number of hours that sea lions were observed in June:	0.0	
Total sea lion presence/Total hours observed:	(1.05÷418.5)	0.0025
Total hours of branded sea lion presence:	01/18 - 05/31	0
Total core hours of branded sea lion presence:	01/15 - 05/15	0

Breakdown by brand & by month:

No branded sea lions were observed in the inner bay during the 2000 season.

2001

Observer Coverage

Start/End Dates of observer coverage:	02/01/01 - 05/29/01
Number of days observed per week:	Feb- 2.25 , Mar- 2.5 , Apr- 1.75 , May- 2.25
Average hrs per day:	Feb- 7.44 , Mar- 6.77 , Apr- 7.5 , May- 6.66
Total hours of observation:	02/01/00 - 05/29/00 - 274.25 hrs
Total core hours of observation:	01/15/99 - 05/15/99 - 213.75

Sea Lion Presence (Inner Bay)

Maximum number of sea lions observed in one day:	0	
Maximum number of sea lions observed in one day in January:	0	
Maximum number of sea lions observed in one day in February:	0	
Maximum number of sea lions observed in one day in March:	0	
Maximum number of sea lions observed in one day in April:	0	
Maximum number of sea lions observed in one day in May:	0	
Maximum number of sea lions observed in one day in June:	0	
Total days that sea lions were observed:	02/01 - 05/29	0
Total core days that sea lions were observed:	01/15 - 05/15	0
Number of days that sea lions were observed in January:	0	
Number of days that sea lions were observed in February:	0	
Number of days that sea lions were observed in March:	0	
Number of days that sea lions were observed in April:	0	
Number of days that sea lions were observed in May:	0	
Number of days that sea lions were observed in June:	0	
Total hours of sea lion presence:	02/01 - 05/29	0.0
Total core hours of sea lion presence:	01/15 - 05/15	0.0
Number of hours that sea lions were observed in January:	0.0	
Number of hours that sea lions were observed in February:	0.0	
Number of hours that sea lions were observed in March:	0.0	
Number of hours that sea lions were observed in April:	0.0	
Number of hours that sea lions were observed in May:	0.0	
Number of hours that sea lions were observed in June:	0.0	
Total sea lion presence/Total hours observed:	(0.0÷274.25)	0.00
Total hours of branded sea lion presence:	02/01 - 05/29	0
Total core hours of branded sea lion presence:	01/15 - 05/15	0

Breakdown by brand & by month:

No branded sea lions were observed in the inner bay during the 2001 season.
