Island: Kauai

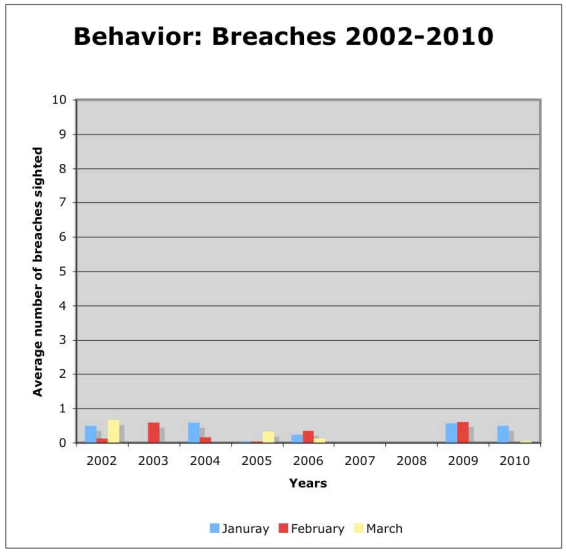
Site #9:Mahaulepu Makawehi

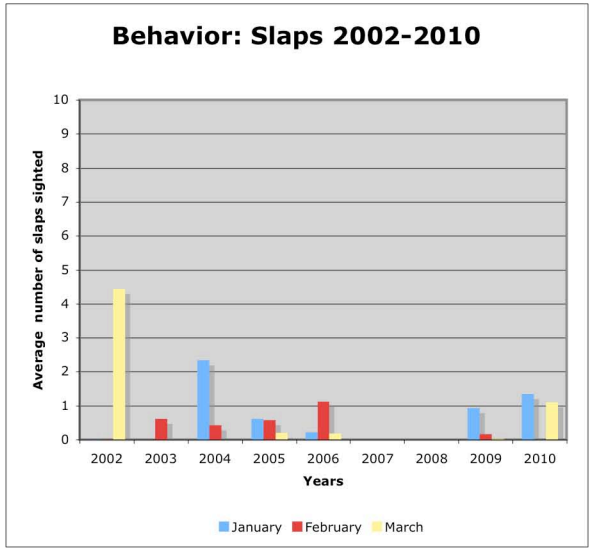
Behavioral Data Analysis

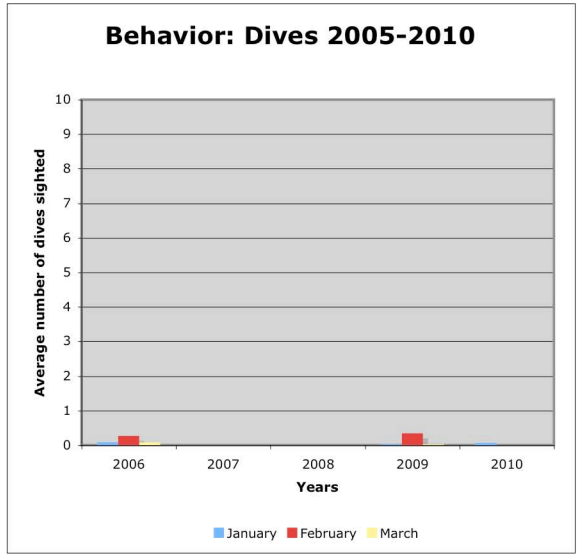
| Breaches | | | |
|---|---|---|---|
| | Januray | February | March |
| 2002 | 0.5 | 0.13 | 0.66 |
| 2003 | 0 | 0.59 | 0 |
| 2004 | 0.6 | 0.17 | NA |
| 2005 | 0.04 | 0.03 | 0.33 |
| 2006 | 0.24 | 0.36 | 0.13 |
| 2007 | NA | NA | NA |
| 2008 | NA | NA | NA |
| 2009 | 0.58 | 0.61 | 0 |
| 2010 | 0.51 | NA | 0.06 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.02 | 0.02 | 4.45 |
| 2003 | 0 | 0.62 | 0 |
| 2004 | 2.34 | 0.43 | NA |
| 2005 | 0.62 | 0.58 | 0.2 |
| 2006 | 0.23 | 1.13 | 0.19 |
| 2007 | NA | NA | NA |
| 2008 | NA | NA | NA |
| 2009 | 0.93 | 0.17 | 0.04 |
| 2010 | 1.36 | NA | 1.1 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0.09 | 0.27 | 0.1 |
| 2007 | NA | NA | NA |
| 2008 | NA | NA | NA |
| 2009 | 0.04 | 0.35 | 0.04 |
| 2010 | 0.07 | NA | 0 |




Above: Average number of breaches and slaps sighted per whale by volunteers at Mahaulepu Makawehi on Kauai for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Kauai

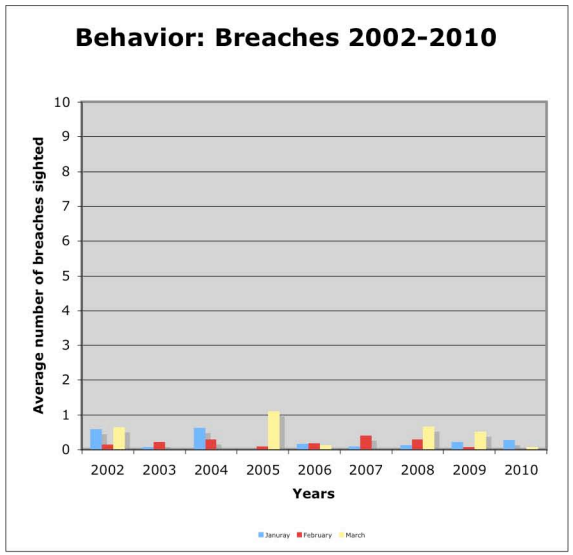
Site #10: Makahuena Point

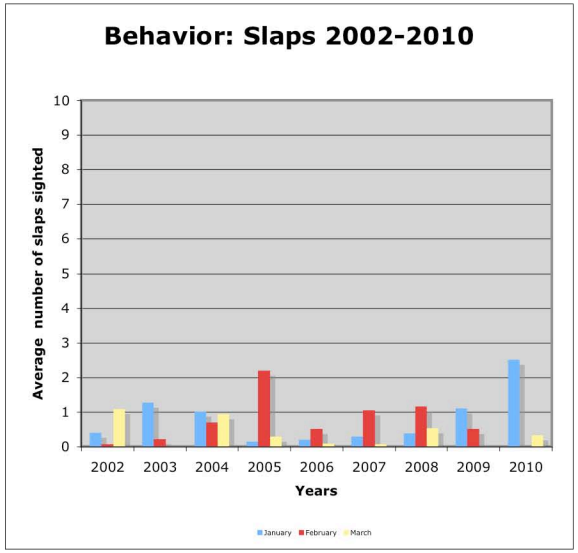
Behavioral Data Analysis

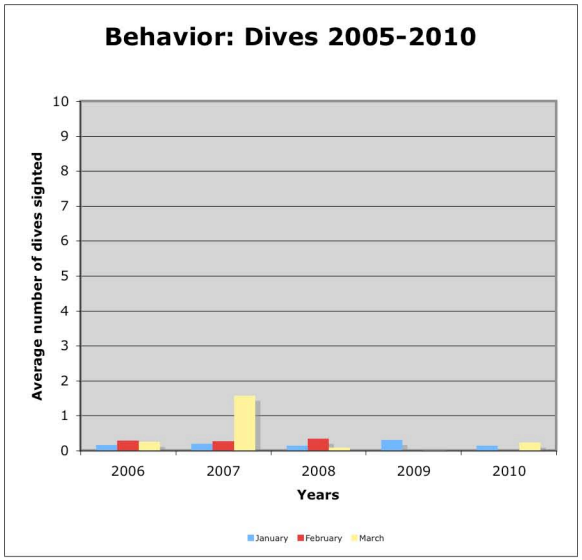
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.59 | 0.15 | 0.64 |
| 2003 | 0.08 | 0.22 | NA |
| 2004 | 0.62 | 0.3 | 0 |
| 2005 | 0 | 0.09 | 1.1 |
| 2006 | 0.17 | 0.19 | 0.13 |
| 2007 | 0.09 | 0.41 | 0 |
| 2008 | 0.12 | 0.3 | 0.67 |
| 2009 | 0.23 | 0.08 | 0.51 |
| 2010 | 0.28 | 0 | 0.07 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.41 | 0.08 | 1.09 |
| 2003 | 1.27 | 0.22 | NA |
| 2004 | 1.02 | 0.71 | 0.94 |
| 2005 | 0.15 | 2.2 | 0.3 |
| 2006 | 0.2 | 0.52 | 0.1 |
| 2007 | 0.3 | 1.06 | 0.07 |
| 2008 | 0.38 | 1.16 | 0.54 |
| 2009 | 1.1 | 0.51 | 0 |
| 2010 | 2.52 | 0 | 0.33 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0.16 | 0.3 | 0.25 |
| 2007 | 0.2 | 0.28 | 1.57 |
| 2008 | 0.15 | 0.34 | 0.1 |
| 2009 | 0.31 | 0 | 0.01 |
| 2010 | 0.14 | 0 | 0.23 |




Above: Average number of breaches and slaps sighted per whale by volunteers at Makahuena Point on Kauai for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Kauai

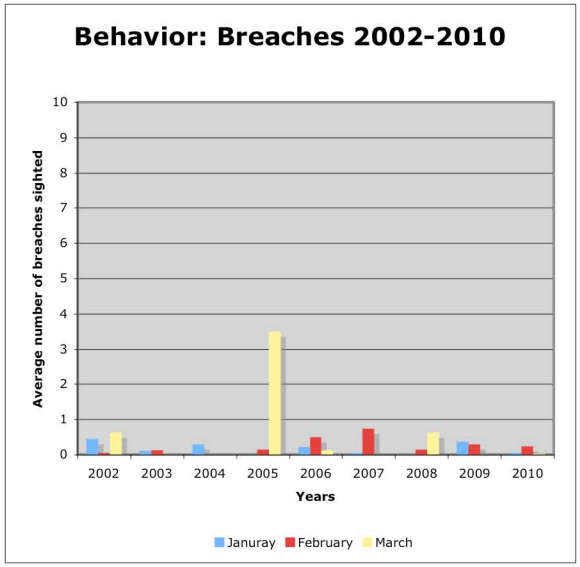
Site #11:Poipu Beach

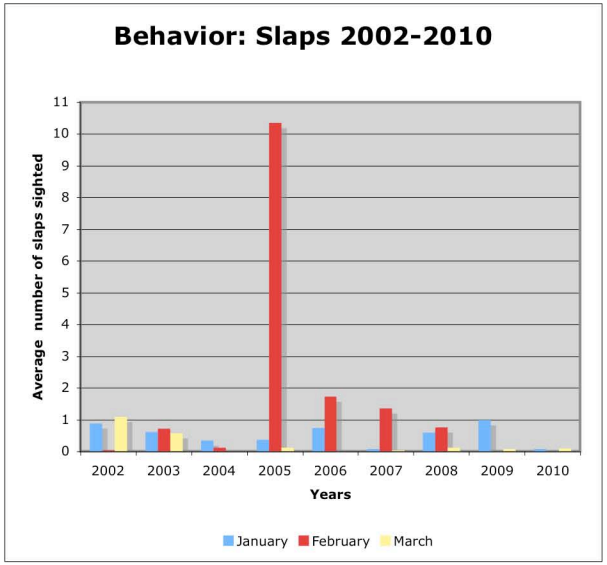
Behavioral Data Analysis

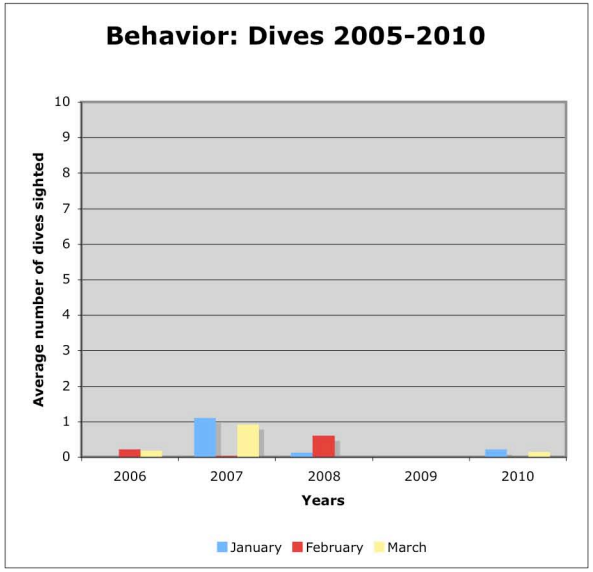
| Breaches | | | |
|---|---|---|---|
| | Januray | February | March |
| 2002 | 0.45 | 0.05 | 0.64 |
| 2003 | 0.12 | 0.13 | 0 |
| 2004 | 0.3 | 0 | NA |
| 2005 | 0 | 0.15 | 3.5 |
| 2006 | 0.23 | 0.5 | 0.13 |
| 2007 | 0.06 | 0.75 | 0 |
| 2008 | 0 | 0.14 | 0.63 |
| 2009 | 0.38 | 0.29 | 0 |
| 2010 | 0.06 | 0.25 | 0.03 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.88 | 0.05 | 1.09 |
| 2003 | 0.61 | 0.73 | 0.57 |
| 2004 | 0.35 | 0.13 | NA |
| 2005 | 0.37 | 10.35 | 0.13 |
| 2006 | 0.74 | 1.73 | 0 |
| 2007 | 0.09 | 1.36 | 0.04 |
| 2008 | 0.59 | 0.77 | 0.13 |
| 2009 | 0.99 | 0 | 0.08 |
| 2010 | 0.09 | 0 | 0.11 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0 | 0.22 | 0.19 |
| 2007 | 1.1 | 0.03 | 0.92 |
| 2008 | 0.13 | 0.61 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0.23 | 0 | 0.15 |




Above: Average number of breaches and slaps sighted per whale by volunteers at Poipu Beach Park on Kauai for the years 2002-2010. Dives were only recorded 2006-2010.

Island: Kauai

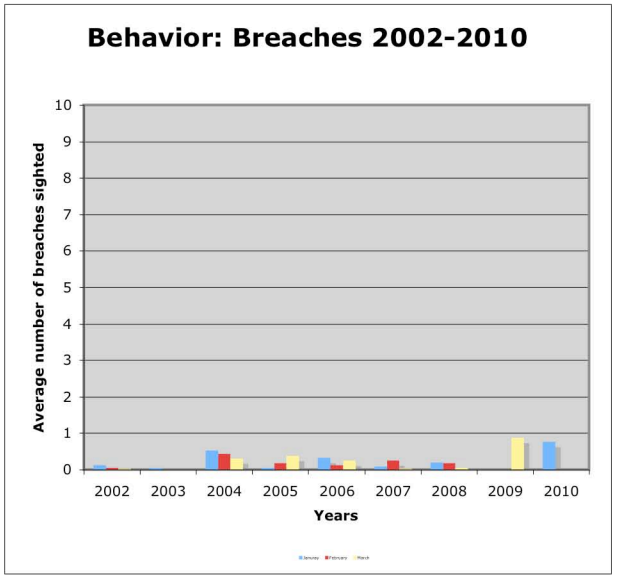
Site #12: Kaiwa Point

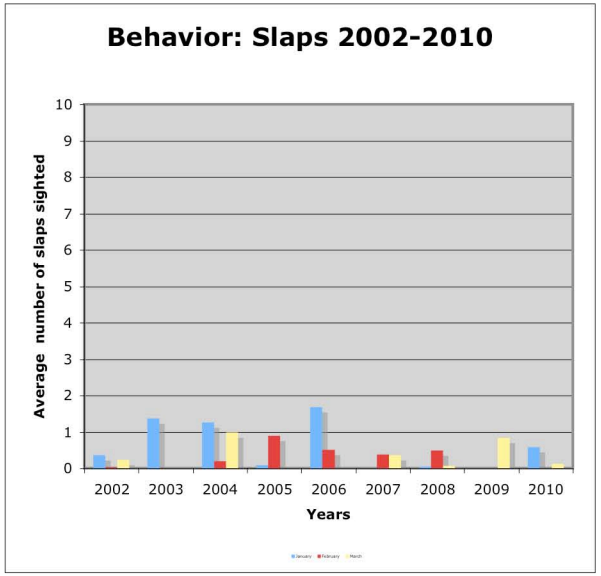
Behavioral Data Analysis

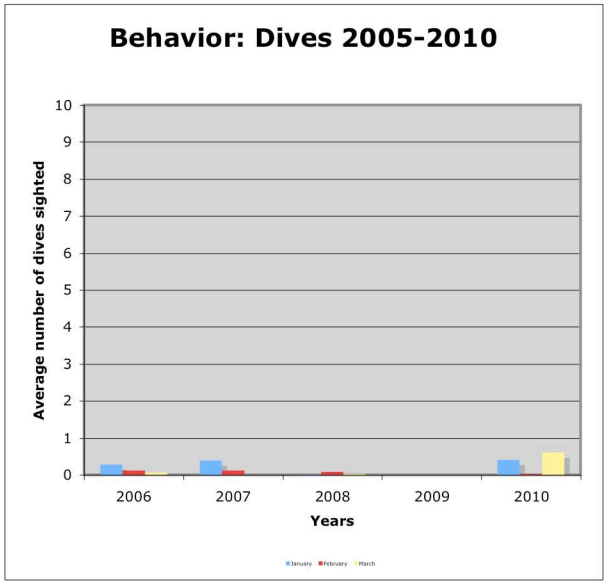
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.13 | 0.06 | 0.03 |
| 2003 | 0.05 | 0 | NA |
| 2004 | 0.54 | 0.44 | 0.31 |
| 2005 | 0.06 | 0.19 | 0.38 |
| 2006 | 0.33 | 0.13 | 0.25 |
| 2007 | 0.1 | 0.25 | 0.03 |
| 2008 | 0.2 | 0.18 | 0.06 |
| 2009 | NA | NA | 0.88 |
| 2010 | 0.77 | 0 | 0 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.36 | 0.03 | 0.23 |
| 2003 | 1.38 | 0 | NA |
| 2004 | 1.26 | 0.21 | 1 |
| 2005 | 0.09 | 0.9 | 0 |
| 2006 | 1.69 | 0.51 | 0 |
| 2007 | 0 | 0.38 | 0.36 |
| 2008 | 0.06 | 0.49 | 0.08 |
| 2009 | NA | NA | 0.85 |
| 2010 | 0.58 | 0 | 0.13 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0.28 | 0.13 | 0.08 |
| 2007 | 0.39 | 0.13 | 0 |
| 2008 | 0.01 | 0.09 | 0.03 |
| 2009 | NA | NA | 0 |
| 2010 | 0.42 | 0.04 | 0.61 |




Above: Average number of breaches and slaps sighted per whale by volunteers at Kaiwa Point on Kauai for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Kauai

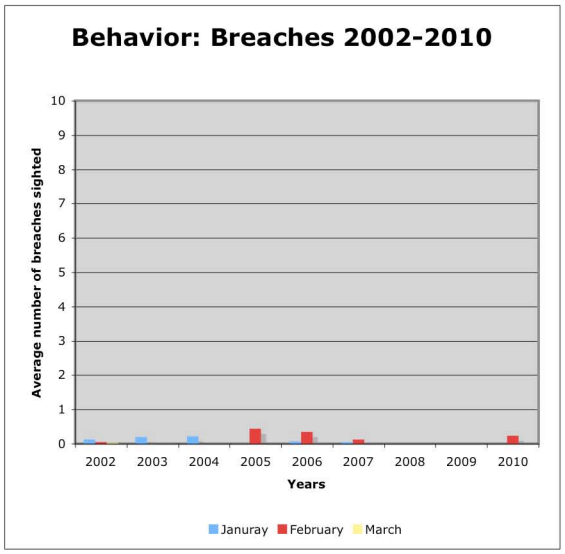
Site #13:Port Allen Cemetery

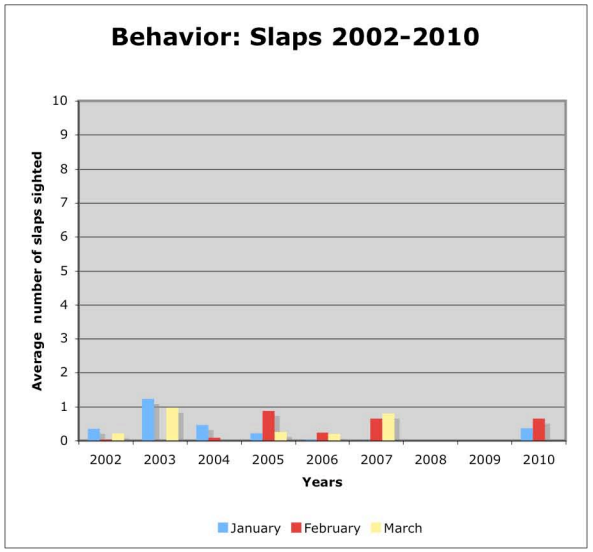
Behavioral Data Analysis

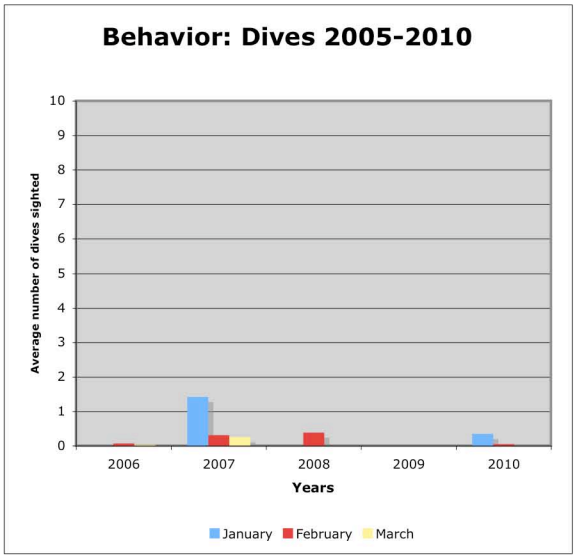
| Breaches | | | |
|---|---|---|---|
| | Januray | February | March |
| 2002 | 0.13 | 0.06 | 0.03 |
| 2003 | 0.21 | NA | 0 |
| 2004 | 0.23 | 0 | NA |
| 2005 | 0 | 0.44 | 0 |
| 2006 | 0.07 | 0.35 | 0 |
| 2007 | 0.06 | 0.13 | 0 |
| 2008 | NA | 0 | 0 |
| 2009 | NA | NA | NA |
| 2010 | 0 | 0.25 | NA |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.36 | 0.03 | 0.23 |
| 2003 | 1.24 | NA | 0.97 |
| 2004 | 0.47 | 0.09 | NA |
| 2005 | 0.22 | 0.88 | 0.26 |
| 2006 | 0.04 | 0.24 | 0.2 |
| 2007 | 0.02 | 0.65 | 0.81 |
| 2008 | NA | 0 | 0 |
| 2009 | NA | NA | NA |
| 2010 | 0.38 | 0.66 | NA |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0 | 0.08 | 0.03 |
| 2007 | 1.42 | 0.32 | 0.25 |
| 2008 | 0 | 0.39 | 0 |
| 2009 | NA | NA | NA |
| 2010 | 0.36 | 0.06 | NA |




Above: Average number of breaches and slaps sighted per whale by volunteers at Port Allen Cemetery on Kauai for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Kauai

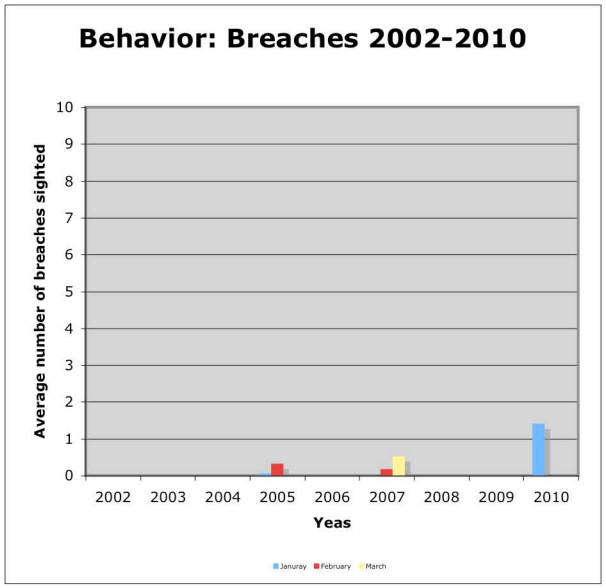
Site #14: Waimea Canyon Drive

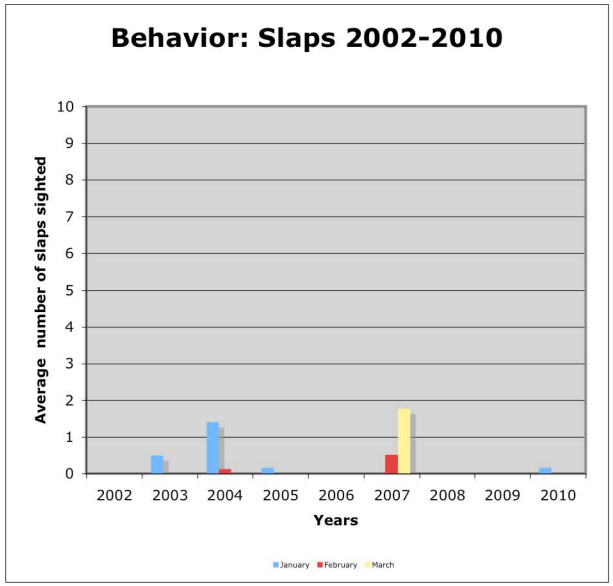
Behavioral Data Analysis

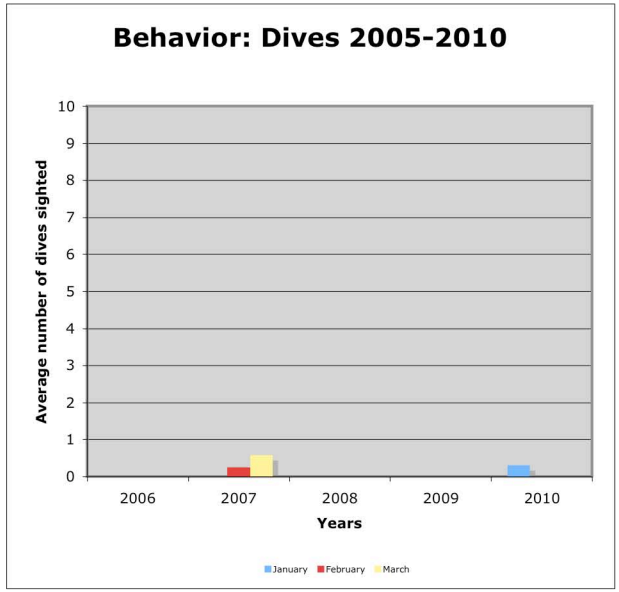
| Breaches | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | NA |
| 2003 | 0 | NA | NA |
| 2004 | 0 | 0 | 0 |
| 2005 | 0.08 | 0.33 | NA |
| 2006 | NA | NA | NA |
| 2007 | NA | 0.19 | 0.53 |
| 2008 | NA | NA | NA |
| 2009 | NA | NA | NA |
| 2010 | 1.42 | NA | 0 |

| Slaps | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | NA |
| 2003 | 0.5 | NA | NA |
| 2004 | 1.41 | 0.13 | 0 |
| 2005 | 0.16 | 0 | NA |
| 2006 | NA | NA | NA |
| 2007 | NA | 0.52 | 1.77 |
| 2008 | NA | NA | NA |
| 2009 | NA | NA | NA |
| 2010 | 0.17 | NA | 0 |

| Dives | January | February | March |
|---|---|---|---|
| 2006 | NA | NA | NA |
| 2007 | NA | 0.25 | 0.59 |
| 2008 | NA | NA | NA |
| 2009 | NA | NA | NA |
| 2010 | 0.32 | NA | 0 |




Above: Average number of breaches and slaps sighted per whale by volunteers at Waimea Canyone Drive on Kauai for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Kauai

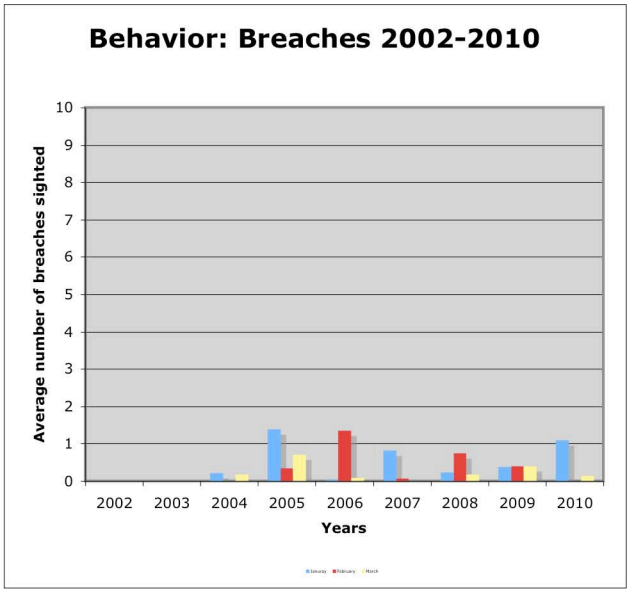
Site #15: PMRF

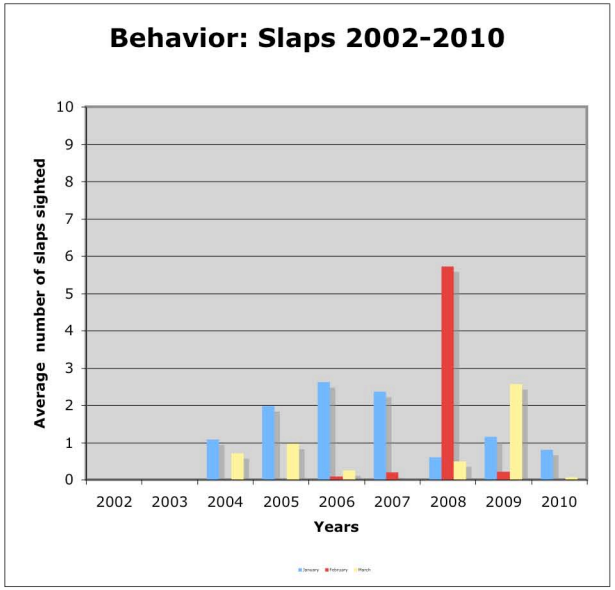
Behavioral Data Analysis

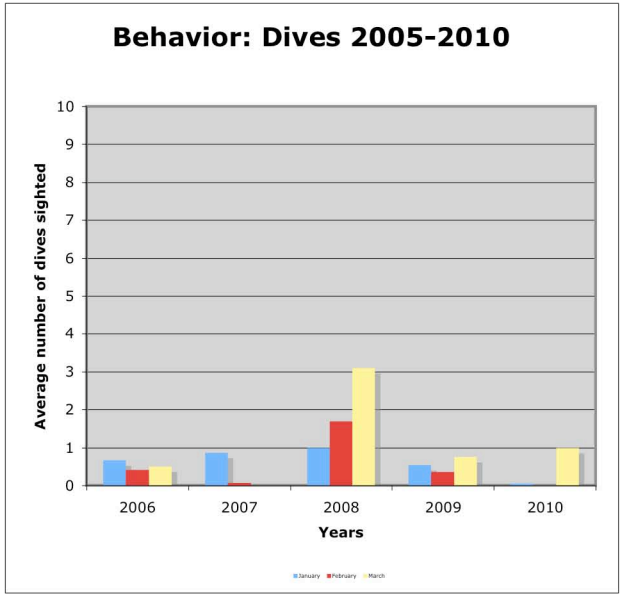
| Breaches | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | NA |
| 2003 | NA | NA | NA |
| 2004 | 0.22 | NA | 0.19 |
| 2005 | 1.4 | 0.34 | 0.71 |
| 2006 | 0.03 | 1.35 | 0.1 |
| 2007 | 0.82 | 0.08 | NA |
| 2008 | 0.24 | 0.75 | 0.19 |
| 2009 | 0.38 | 0.4 | 0.4 |
| 2010 | 1.1 | NA | 0.15 |

| Slaps | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | NA |
| 2003 | NA | NA | NA |
| 2004 | 1.08 | NA | 0.71 |
| 2005 | 1.98 | 0 | 0.98 |
| 2006 | 2.63 | 0.09 | 0.26 |
| 2007 | 2.36 | 0.21 | NA |
| 2008 | 0.6 | 5.73 | 0.5 |
| 2009 | 1.16 | 0.22 | 2.57 |
| 2010 | 0.8 | NA | 0.07 |

| Dives | January | February | March |
|---|---|---|---|
| 2006 | 0.66 | 0.42 | 0.51 |
| 2007 | 0.86 | 0.07 | NA |
| 2008 | 0.99 | 1.69 | 3.11 |
| 2009 | 0.55 | 0.37 | 0.75 |
| 2010 | 0.06 | NA | 0.99 |






Above: Average number of breaches and slaps sighted per whale by volunteers at Pacific Missile Range Facility on Kauai for the years 2002-2010. Dives were only recorded from 2006-2010.

# Oahu

## Behavioral Data Analysis by Site

## January, February and March

## Breaches: 2002-2010

## Slaps: 2002-2010

## Dives: 2006-2010

Doug Perrine/ HWRF/
Seapics.com/NOAA Fisheries
Permit # 882

Doug Perrine/ HWRF/
Seapics.com/NOAA Fisheries
Permit # 882

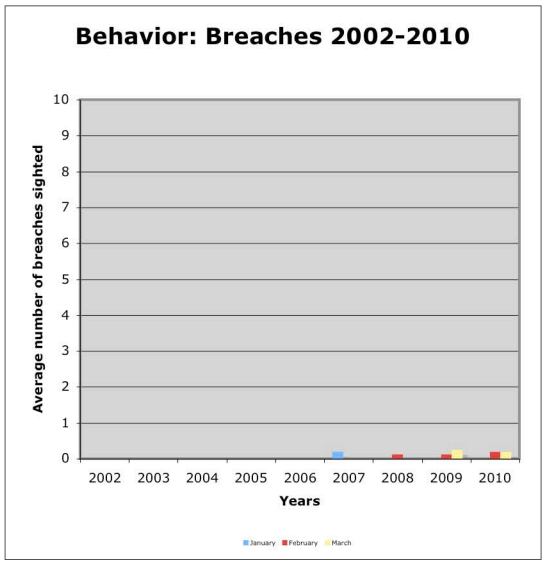
Flip Nicklin/ Minden
Picutres/NOAA Fisheries
Permit # 987

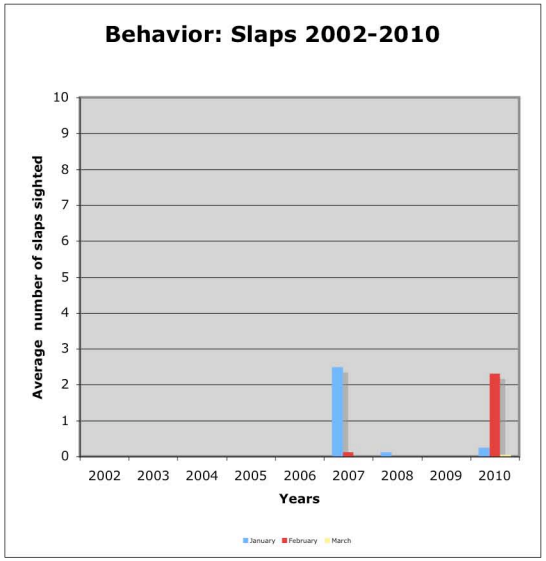
Island: Oahu Site #1:Ewa Beach Park Behavioral Data Analysis

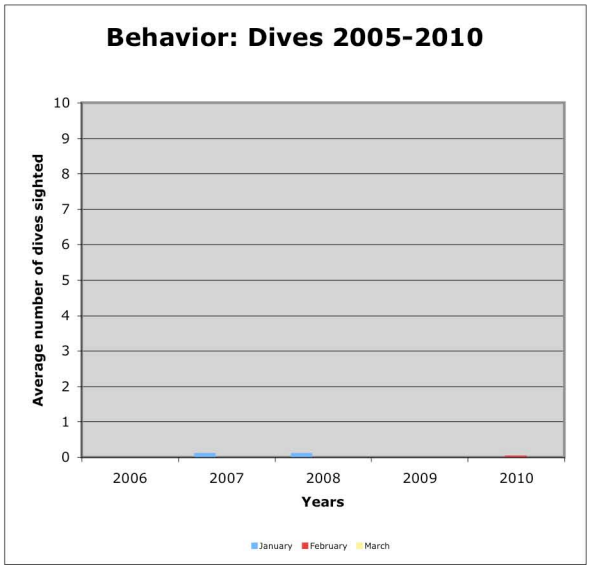
| Breaches | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | NA |
| 2003 | NA | NA | NA |
| 2004 | NA | NA | NA |
| 2005 | NA | NA | NA |
| 2006 | 0 | 0 | 0 |
| 2007 | 0.19 | 0 | 0 |
| 2008 | 0 | 0.13 | 0 |
| 2009 | 0 | 0.13 | 0.25 |
| 2010 | 0 | 0.19 | 0.19 |

| Slaps | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | NA |
| 2003 | NA | NA | NA |
| 2004 | NA | NA | NA |
| 2005 | NA | NA | NA |
| 2006 | 0 | 0 | 0 |
| 2007 | 2.5 | 0.13 | 0 |
| 2008 | 0.13 | 0 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0.25 | 2.31 | 0.06 |

| Dives | January | February | March |
|---|---|---|---|
| 2006 | 0 | 0 | 0 |
| 2007 | 0.13 | 0 | 0 |
| 2008 | 0.13 | 0 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0 | 0.06 | 0 |




Above: Average number of breaches and slaps sighted per whale by volunteers at Ewa Beach Park on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Oahu

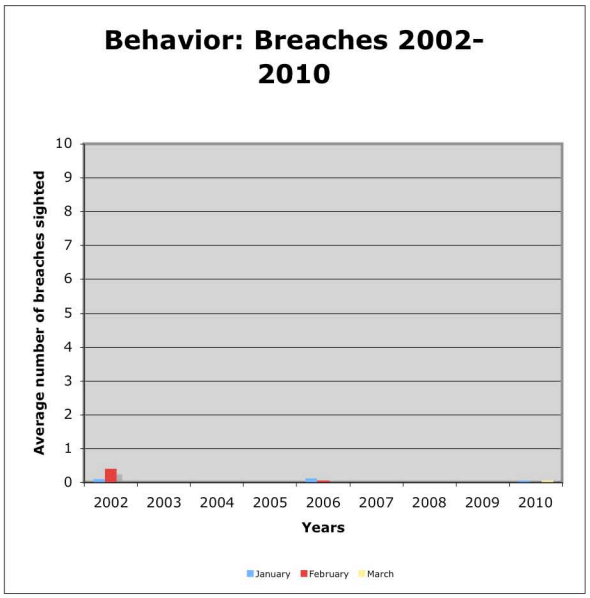
Site #2: Ko Olina

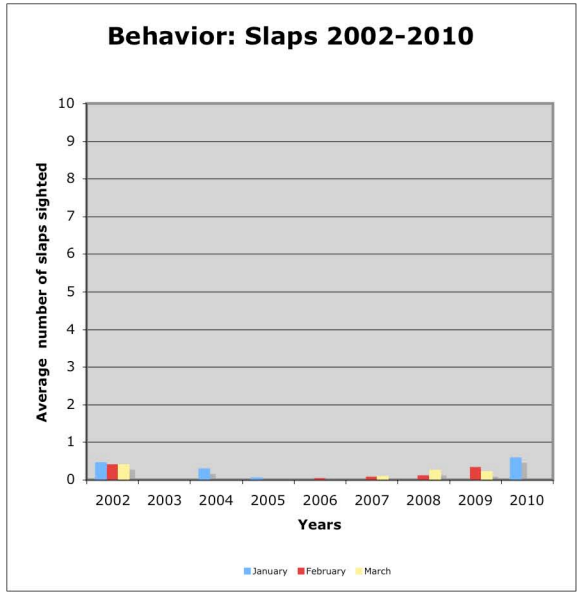
Behavioral Data Analysis

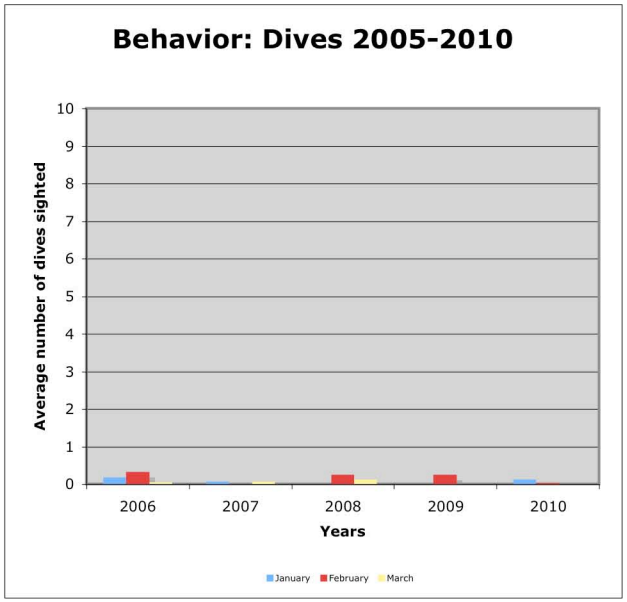
| Breaches | January | February | March |
|---|---|---|---|
| 2002 | 0.1 | 0.41 | 0.41 |
| 2003 | NA | NA | NA |
| 2004 | 0 | NA | NA |
| 2005 | 0 | NA | NA |
| 2006 | 0.13 | 0.06 | 0 |
| 2007 | 0 | 0 | 0.09 |
| 2008 | 0 | 0 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0.06 | 0 | 0 |

| Slaps | January | February | March |
|---|---|---|---|
| 2002 | 0.48 | 0.42 | 0.42 |
| 2003 | NA | NA | NA |
| 2004 | 0.31 | NA | NA |
| 2005 | 0.08 | NA | NA |
| 2006 | 0 | 0.06 | 0 |
| 2007 | 0 | 0.09 | 0.11 |
| 2008 | 0 | 0.13 | 0.27 |
| 2009 | 0 | 0.35 | 0.23 |
| 2010 | 0.6 | 0 | 0 |

| Dives | January | February | March |
|---|---|---|---|
| 2006 | 0.19 | 0.33 | 0.06 |
| 2007 | 0.08 | 0 | 0.08 |
| 2008 | 0 | 0.25 | 0.13 |
| 2009 | 0 | 0.25 | 0 |
| 2010 | 0.12 | 0.03 | 0 |




Above: Average number of breaches and slaps sighted per whale by volunteers at Ko Olina on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Oahu

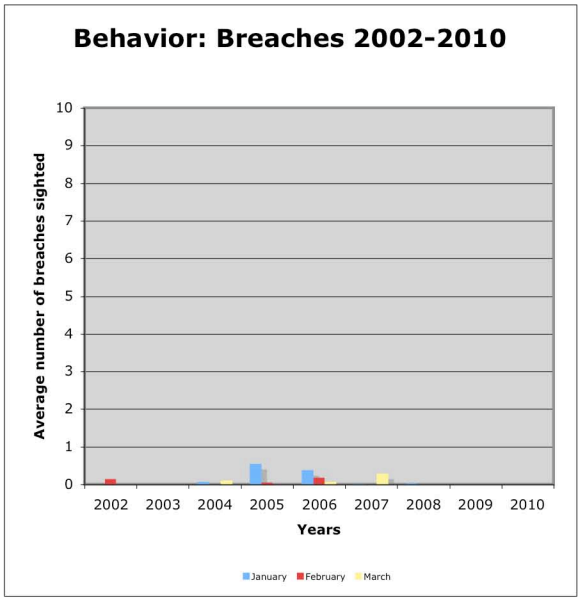
Site #3: Maili Point

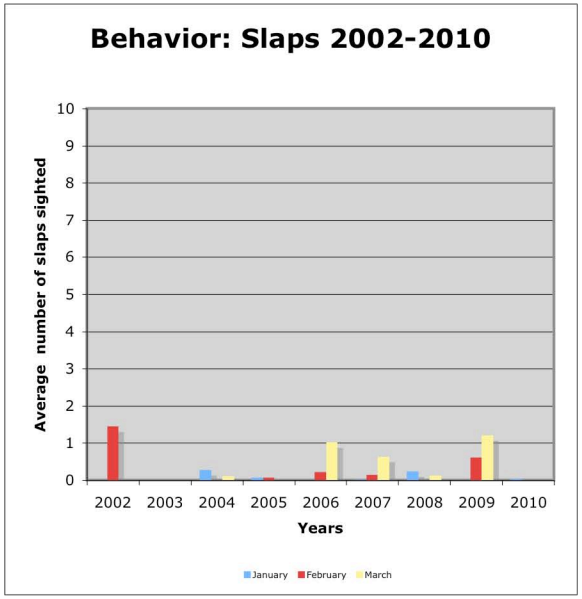
Behavioral Data Analysis

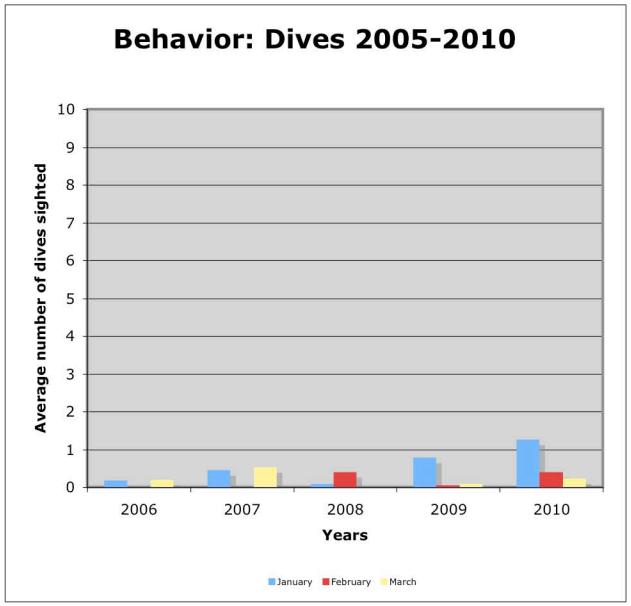
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | NA | 0.14 | NA |
| 2003 | NA | NA | NA |
| 2004 | 0.07 | NA | 0.11 |
| 2005 | 0.55 | 0.06 | NA |
| 2006 | 0.38 | 0.18 | 0.07 |
| 2007 | 0.01 | 0 | 0.29 |
| 2008 | 0.03 | 0 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0 | 0 | 0 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | NA | 1.46 | NA |
| 2003 | NA | NA | NA |
| 2004 | 0.28 | NA | 0.11 |
| 2005 | 0.07 | 0.08 | NA |
| 2006 | 0 | 0.22 | 1.02 |
| 2007 | 0.02 | 0.14 | 0.63 |
| 2008 | 0.25 | 0 | 0.13 |
| 2009 | 0 | 0.61 | 1.22 |
| 2010 | 0.04 | 0 | 0 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0.19 | 0 | 0.21 |
| 2007 | 0.45 | 0 | 0.54 |
| 2008 | 0.09 | 0.41 | 0 |
| 2009 | 0.79 | 0.05 | 0.09 |
| 2010 | 1.27 | 0.4 | 0.23 |






Above: Average number of breaches and slaps sighted per whale by volunteers at Maili Point on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Oahu

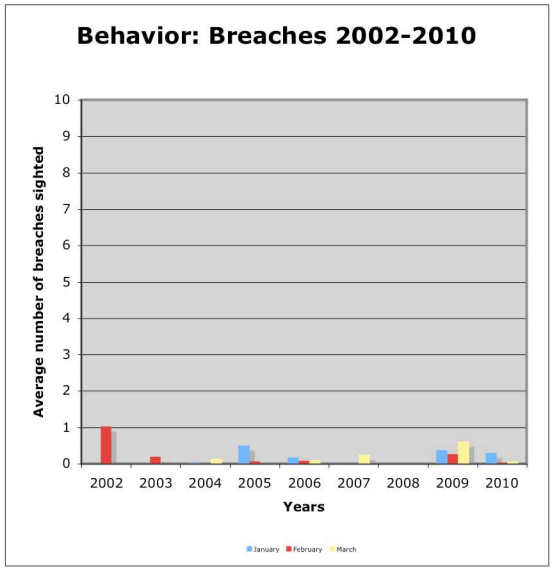
Site #4: Makua Cave

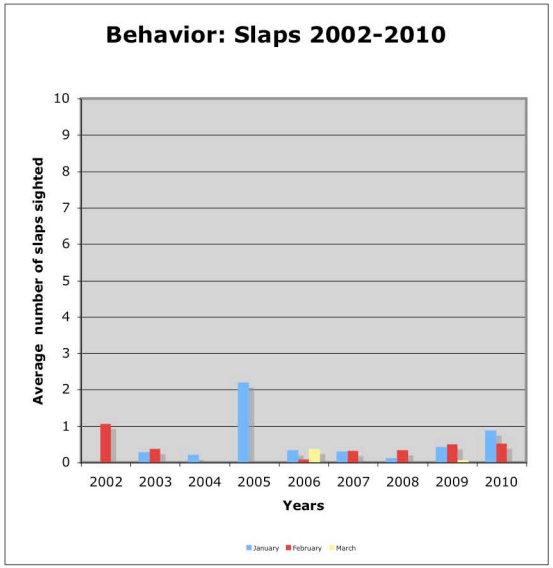
Behavioral Data Analysis

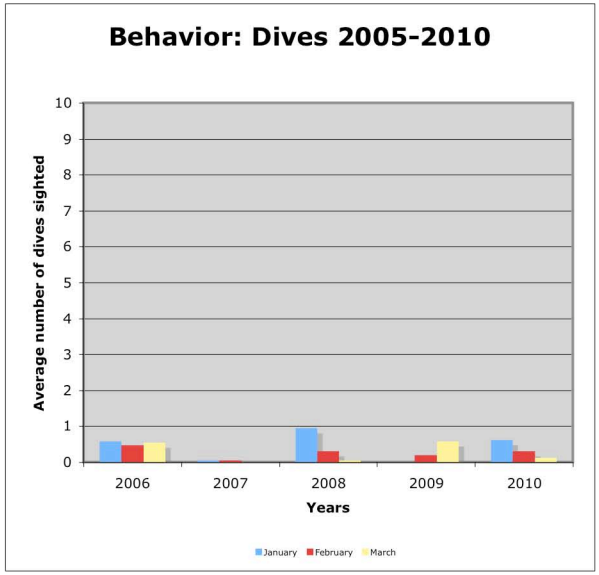
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | NA | 1.03 | NA |
| 2003 | 0 | 0.19 | NA |
| 2004 | 0.04 | NA | 0.14 |
| 2005 | 0.5 | 0.07 | NA |
| 2006 | 0.18 | 0.09 | 0.11 |
| 2007 | 0.01 | 0 | 0.25 |
| 2008 | 0 | 0 | 0 |
| 2009 | 0.38 | 0.28 | 0.62 |
| 2010 | 0.3 | 0.03 | 0.08 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | NA | 1.06 | NA |
| 2003 | 0.29 | 0.38 | NA |
| 2004 | 0.22 | NA | 0 |
| 2005 | 2.2 | 0 | NA |
| 2006 | 0.34 | 0.09 | 0.38 |
| 2007 | 0.31 | 0.32 | 0 |
| 2008 | 0.13 | 0.34 | 0 |
| 2009 | 0.43 | 0.51 | 0.08 |
| 2010 | 0.89 | 0.53 | 0 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0.59 | 0.47 | 0.55 |
| 2007 | 0.06 | 0.06 | 0 |
| 2008 | 0.95 | 0.31 | 0.06 |
| 2009 | 0 | 0.2 | 0.58 |
| 2010 | 0.62 | 0.31 | 0.13 |




Above: Average number of breaches and slaps sighted per whale by volunteers at Makua Cave on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Oahu

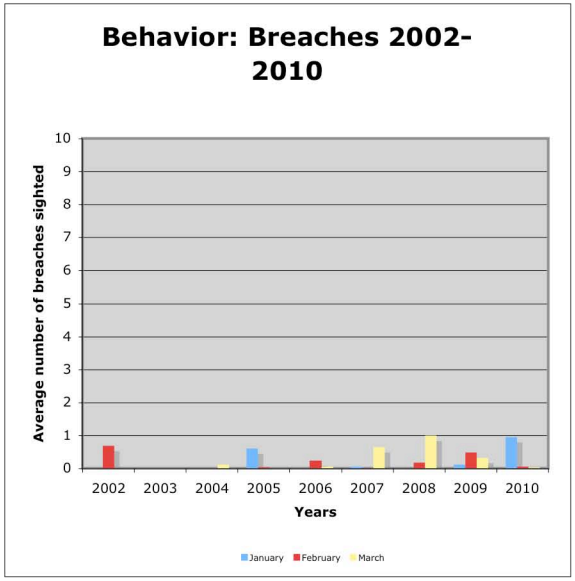
Site #5: Kaena Point-West

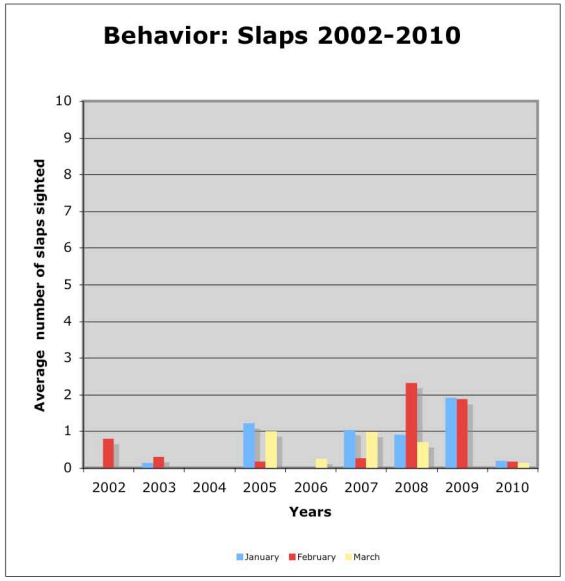
Behavioral Data Analysis

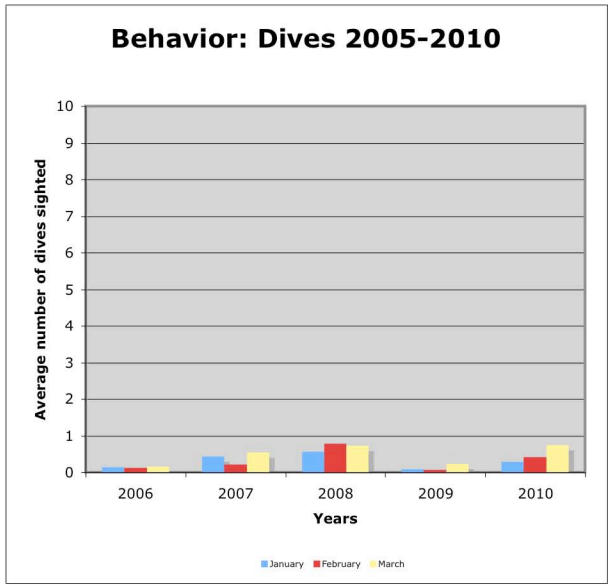
| Breaches | January | February | March |
|---|---|---|---|
| 2002 | NA | 0.7 | NA |
| 2003 | 0 | 0 | NA |
| 2004 | 0 | NA | 0.13 |
| 2005 | 0.61 | 0.05 | 0 |
| 2006 | 0 | 0.25 | 0.06 |
| 2007 | 0.07 | 0.03 | 0.66 |
| 2008 | 0 | 0.19 | 1 |
| 2009 | 0.13 | 0.48 | 0.33 |
| 2010 | 0.96 | 0.06 | 0.04 |

| Slaps | January | February | March |
|---|---|---|---|
| 2002 | NA | 0.8 | NA |
| 2003 | 0.15 | 0.31 | NA |
| 2004 | 0 | NA | 0 |
| 2005 | 1.22 | 0.19 | 1 |
| 2006 | 0 | 0 | 0.26 |
| 2007 | 1.05 | 0.28 | 0.99 |
| 2008 | 0.92 | 2.33 | 0.71 |
| 2009 | 1.92 | 1.89 | 0 |
| 2010 | 0.21 | 0.18 | 0.15 |

| Dives | January | February | March |
|---|---|---|---|
| 2006 | 0.15 | 0.13 | 0.17 |
| 2007 | 0.44 | 0.22 | 0.55 |
| 2008 | 0.56 | 0.78 | 0.73 |
| 2009 | 0.1 | 0.08 | 0.23 |
| 2010 | 0.3 | 0.43 | 0.75 |




Above: Average number of breaches and slaps sighted per whale by volunteers at Kaena Point-West on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Oahu

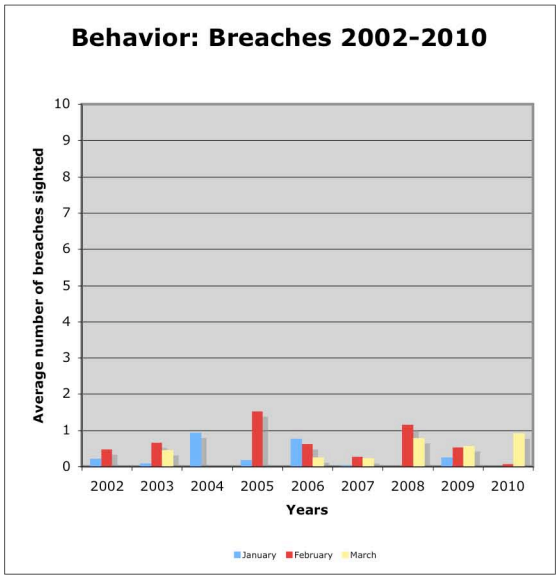
Site #6: Kaena Point-North

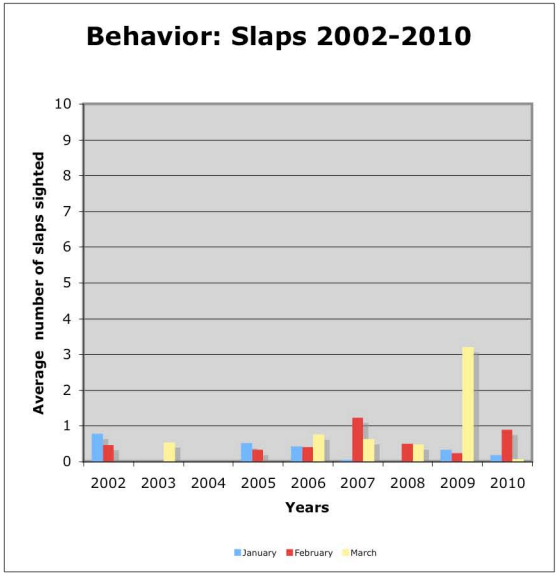
Behavioral Data Analysis

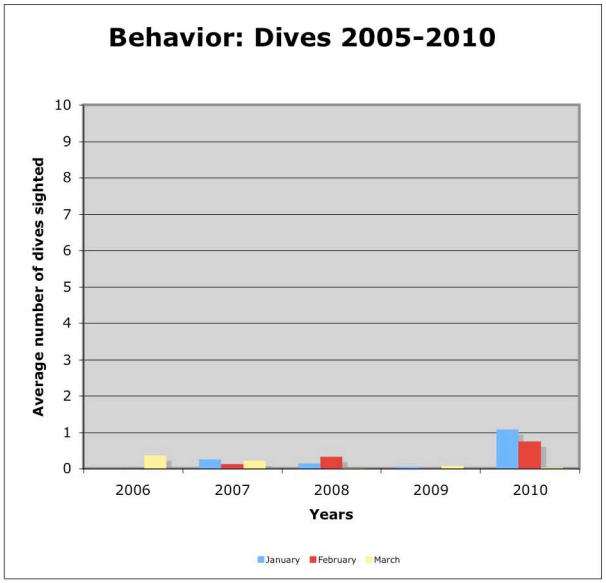
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.23 | 0.47 | NA |
| 2003 | 0.09 | 0.67 | 0.46 |
| 2004 | 0.94 | NA | NA |
| 2005 | 0.19 | 1.53 | NA |
| 2006 | 0.78 | 0.63 | 0.25 |
| 2007 | 0.04 | 0.27 | 0.24 |
| 2008 | 0 | 1.16 | 0.79 |
| 2009 | 0.25 | 0.53 | 0.57 |
| 2010 | 0 | 0.07 | 0.93 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.79 | 0.46 | NA |
| 2003 | 0 | 0 | 0.54 |
| 2004 | 0 | NA | NA |
| 2005 | 0.52 | 0.33 | NA |
| 2006 | 0.42 | 0.41 | 0.76 |
| 2007 | 0.06 | 1.24 | 0.63 |
| 2008 | 0 | 0.51 | 0.49 |
| 2009 | 0.34 | 0.25 | 3.21 |
| 2010 | 0.19 | 0.9 | 0.08 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0 | 0.02 | 0.37 |
| 2007 | 0.26 | 0.13 | 0.22 |
| 2008 | 0.14 | 0.33 | 0.02 |
| 2009 | 0.05 | 0 | 0.08 |
| 2010 | 1.09 | 0.76 | 0.03 |



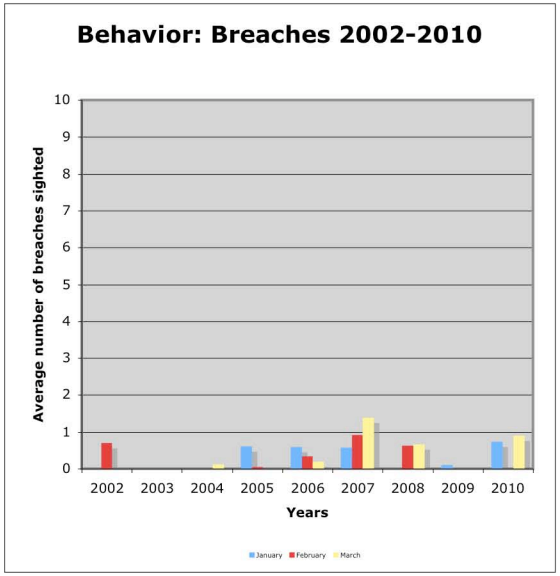

Above: Average number of breaches and slaps sighted per whale by volunteers at Kaena Point-North on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

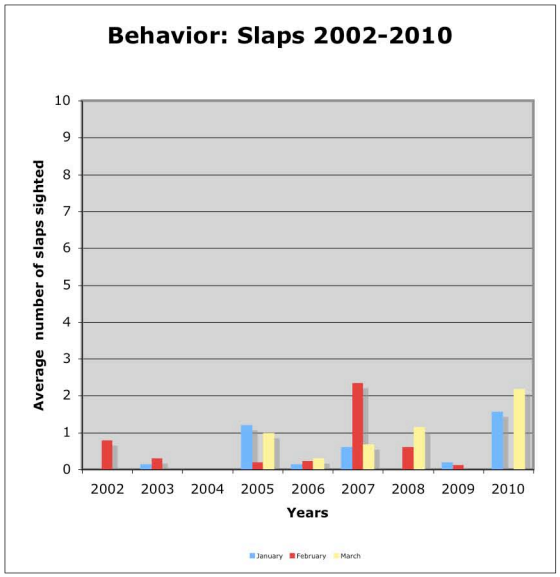
Island: Oahu Site #7: Mokuleia Beach Park Behavioral Data Analysis

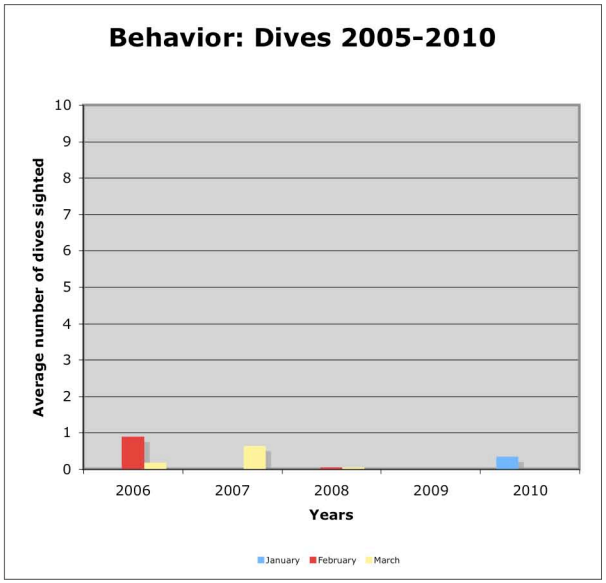
| Breaches | January | February | March |
|---|---|---|---|
| 2002 | NA | 0.7 | NA |
| 2003 | 0 | 0 | NA |
| 2004 | 0 | NA | 0.13 |
| 2005 | 0.61 | 0.05 | 0 |
| 2006 | 0.6 | 0.34 | 0.2 |
| 2007 | 0.58 | 0.92 | 1.39 |
| 2008 | NA | 0.64 | 0.67 |
| 2009 | 0.11 | 0 | NA |
| 2010 | 0.75 | 0 | 0.91 |

| Slaps | January | February | March |
|---|---|---|---|
| 2002 | NA | 0.8 | NA |
| 2003 | 0.15 | 0.31 | NA |
| 2004 | 0 | NA | 0 |
| 2005 | 1.22 | 0.19 | 1 |
| 2006 | 0.14 | 0.24 | 0.3 |
| 2007 | 0.61 | 2.35 | 0.68 |
| 2008 | NA | 0.61 | 1.15 |
| 2009 | 0.19 | 0.13 | NA |
| 2010 | 1.57 | 0 | 2.19 |

| Dives | January | February | March |
|---|---|---|---|
| 2006 | 0 | 0.89 | 0.19 |
| 2007 | 0 | 0 | 0.64 |
| 2008 | NA | 0.05 | 0.06 |
| 2009 | 0 | 0 | NA |
| 2010 | 0.35 | 0 | 0 |




Above: Average number of breaches and slaps sighted per whale by volunteers at Mokuleia Beach Park on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Oahu

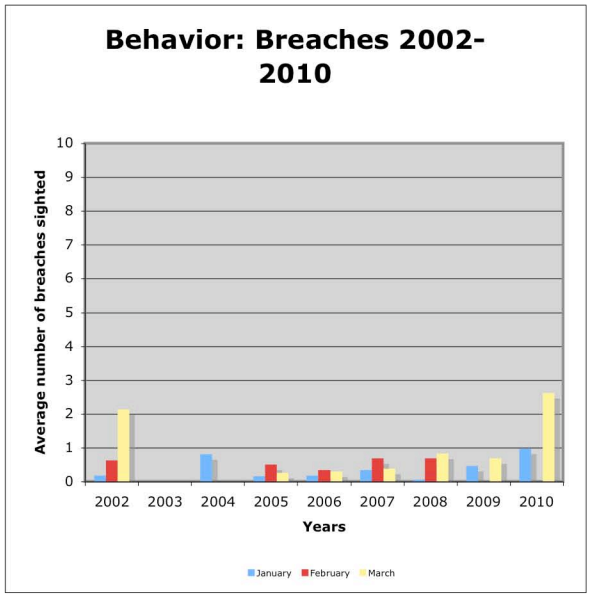
Site #8:Puaena Point

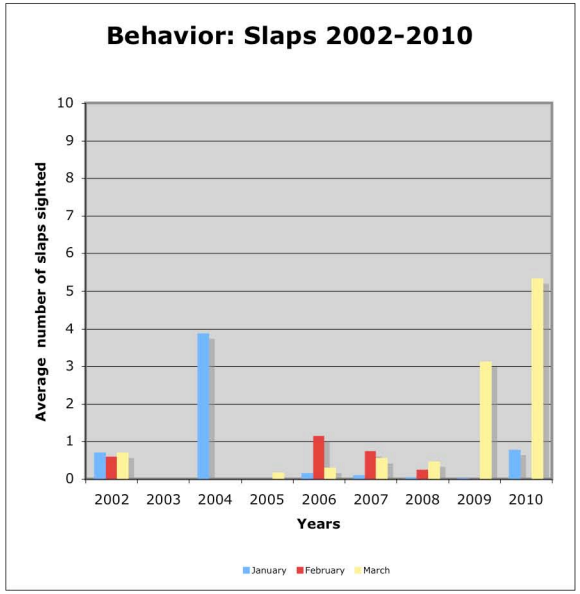
Behavioral Data Analysis

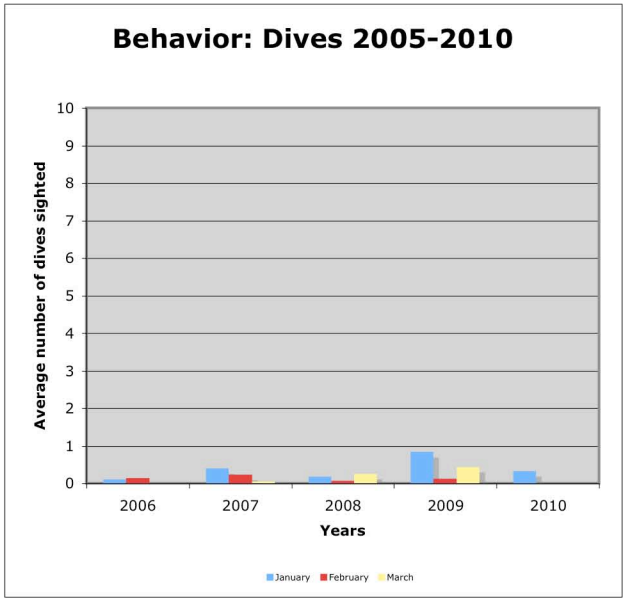
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.19 | 0.63 | 2.14 |
| 2003 | NA | NA | NA |
| 2004 | 0.82 | NA | NA |
| 2005 | 0.17 | 0.5 | 0.26 |
| 2006 | 0.19 | 0.35 | 0.31 |
| 2007 | 0.34 | 0.7 | 0.38 |
| 2008 | 0.06 | 0.69 | 0.83 |
| 2009 | 0.46 | 0 | 0.69 |
| 2010 | 0.97 | NA | 2.63 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.71 | 0.6 | 0.71 |
| 2003 | NA | NA | NA |
| 2004 | 3.88 | NA | NA |
| 2005 | 0 | 0 | 0.19 |
| 2006 | 0.17 | 1.15 | 0.31 |
| 2007 | 0.11 | 0.75 | 0.56 |
| 2008 | 0.06 | 0.25 | 0.48 |
| 2009 | 0.03 | 0 | 3.13 |
| 2010 | 0.79 | NA | 5.35 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0.11 | 0.15 | 0 |
| 2007 | 0.41 | 0.24 | 0.05 |
| 2008 | 0.19 | 0.07 | 0.25 |
| 2009 | 0.84 | 0.13 | 0.44 |
| 2010 | 0.33 | NA | 0 |





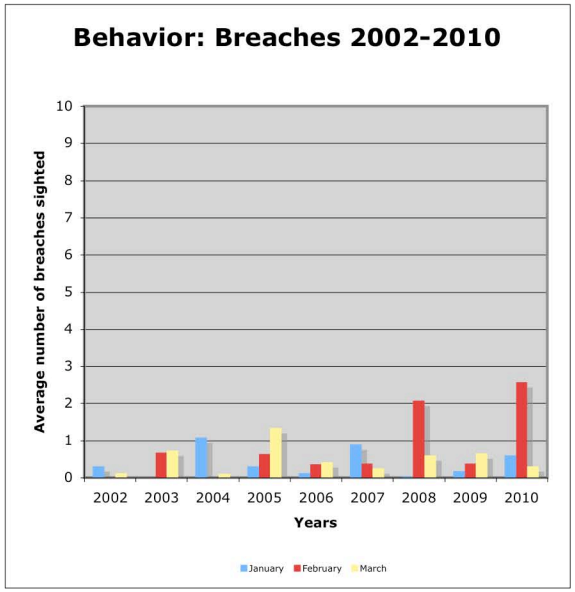

Above: Average number of breaches and slaps sighted per whale by volunteers at Puaena Point on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

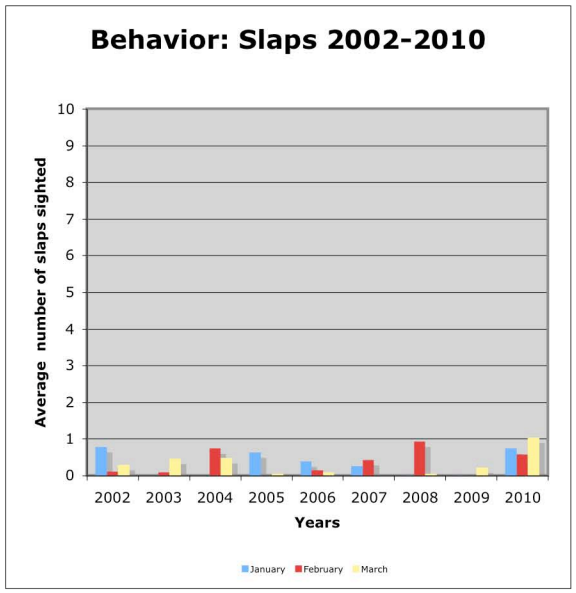
Island:Oahu Site #9: Shark's Cove Behavioral Data Analysis

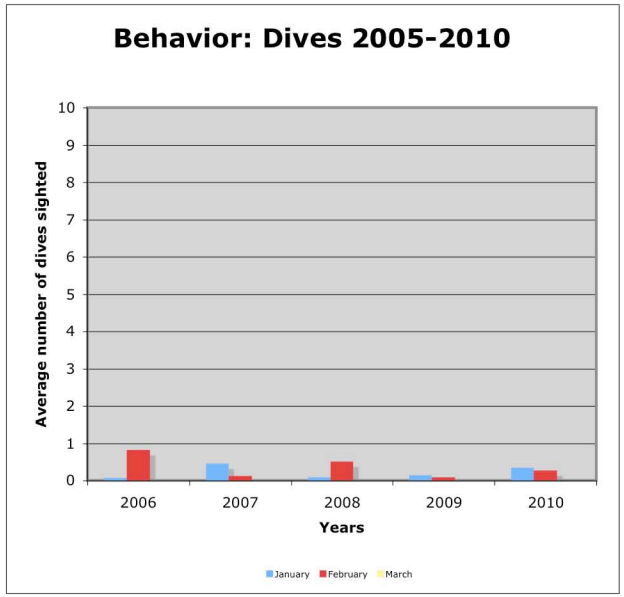
| Breaches | January | February | March |
|---|---|---|---|
| 2002 | 0.31 | 0 | 0.13 |
| 2003 | NA | 0.69 | 0.74 |
| 2004 | 1.09 | 0 | 0.11 |
| 2005 | 0.32 | 0.64 | 1.35 |
| 2006 | 0.12 | 0.36 | 0.42 |
| 2007 | 0.9 | 0.38 | 0.26 |
| 2008 | 0.04 | 2.08 | 0.61 |
| 2009 | 0.19 | 0.38 | 0.66 |
| 2010 | 0.61 | 2.58 | 0.31 |

| Slaps | January | February | March |
|---|---|---|---|
| 2002 | 0.78 | 0.12 | 0.29 |
| 2003 | NA | 0.1 | 0.46 |
| 2004 | 0 | 0.75 | 0.49 |
| 2005 | 0.64 | 0 | 0.06 |
| 2006 | 0.39 | 0.14 | 0.1 |
| 2007 | 0.27 | 0.42 | 0 |
| 2008 | 0.01 | 0.94 | 0.06 |
| 2009 | 0.02 | 0 | 0.23 |
| 2010 | 0.74 | 0.57 | 1.05 |

| Dives | January | February | March |
|---|---|---|---|
| 2006 | 0.08 | 0.01 | 0.83 |
| 2007 | 0.46 | 0.07 | 0.13 |
| 2008 | 0.09 | 0.22 | 0.52 |
| 2009 | 0.15 | 0 | 0.09 |
| 2010 | 0.35 | 0 | 0.27 |






Above: Average number of breaches and slaps sighted per whale by volunteers at Shark's Cove on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island:Oahu

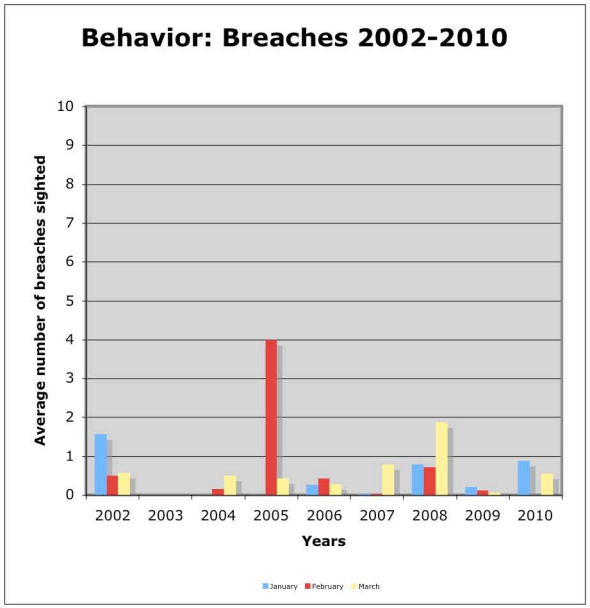
Site #10: Turtle Bay

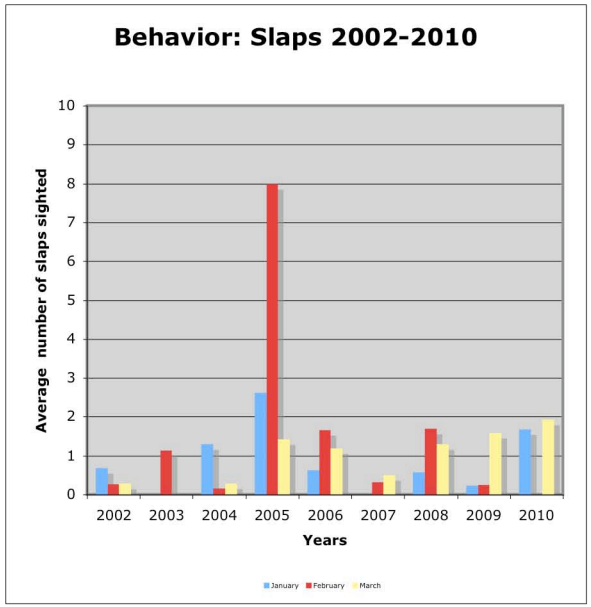
Behavioral Data Analysis

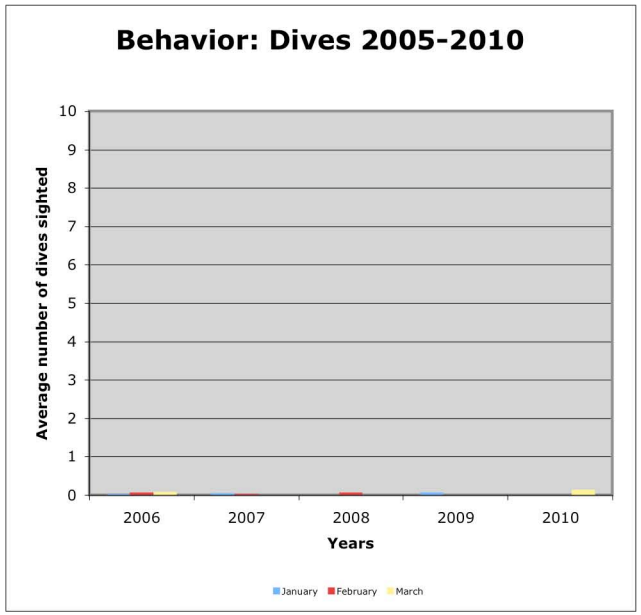
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 1.57 | 0.5 | 0.57 |
| 2003 | NA | 0 | NA |
| 2004 | 0 | 0.17 | 0.5 |
| 2005 | 0 | 4 | 0.43 |
| 2006 | 0.27 | 0.43 | 0.29 |
| 2007 | 0.03 | 0.04 | 0.8 |
| 2008 | 0.79 | 0.73 | 1.88 |
| 2009 | 0.22 | 0.13 | 0.08 |
| 2010 | 0.88 | NA | 0.56 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.68 | 0.28 | 0.29 |
| 2003 | NA | 1.14 | NA |
| 2004 | 1.3 | 0.17 | 0.29 |
| 2005 | 2.62 | 8 | 1.43 |
| 2006 | 0.63 | 1.67 | 1.19 |
| 2007 | 0 | 0.33 | 0.51 |
| 2008 | 0.58 | 1.7 | 1.3 |
| 2009 | 0.23 | 0.25 | 1.6 |
| 2010 | 1.69 | NA | 1.94 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0.04 | 0.08 | 0.09 |
| 2007 | 0.06 | 0.03 | 0 |
| 2008 | 0 | 0.07 | 0 |
| 2009 | 0.08 | 0 | 0 |
| 2010 | 0 | NA | 0.14 |





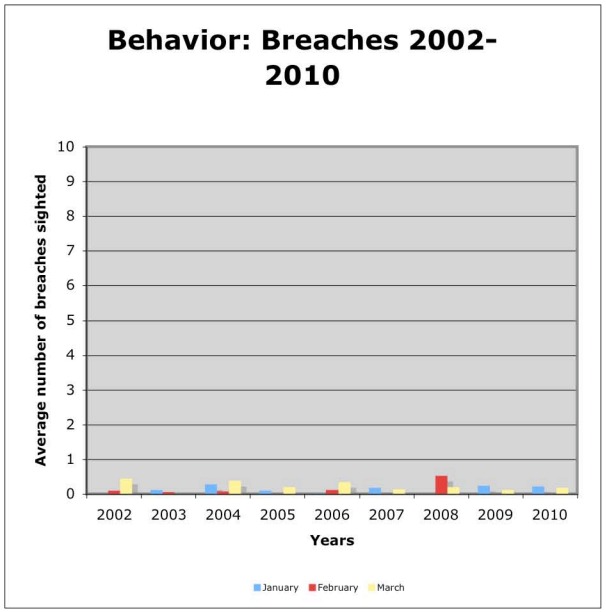

Above: Average number of breaches and slaps sighted per whale by volunteers at Turtle Bay on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

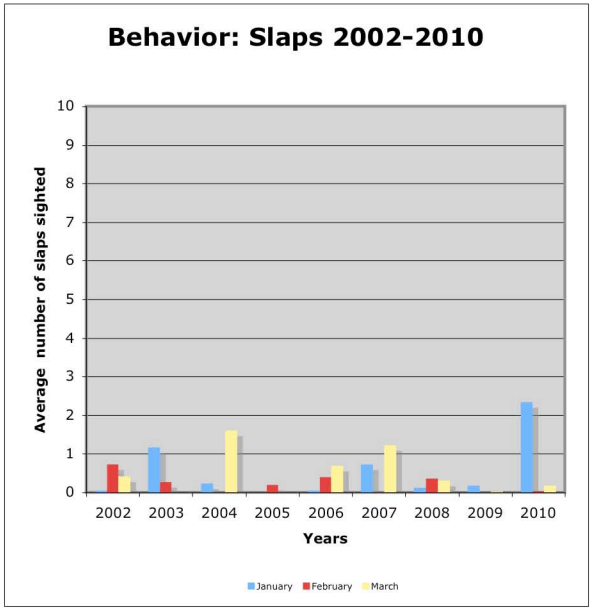
Island: Oahu Site #11: Laie Point Behavioral Data Analysis

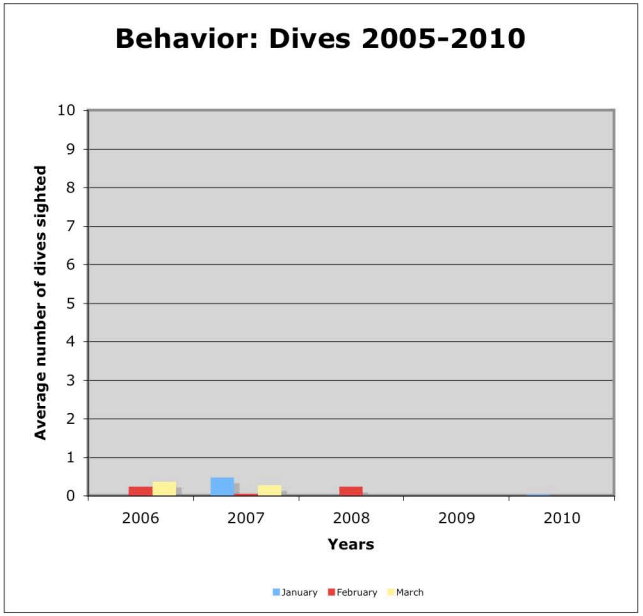
| Breaches | January | February | March |
|---|---|---|---|
| 2002 | 0 | 0.1 | 0.45 |
| 2003 | 0.13 | 0.07 | NA |
| 2004 | 0.29 | 0.08 | 0.38 |
| 2005 | 0.11 | 0 | 0.21 |
| 2006 | 0.02 | 0.13 | 0.34 |
| 2007 | 0.18 | 0 | 0.15 |
| 2008 | 0 | 0.52 | 0.2 |
| 2009 | 0.25 | 0 | 0.13 |
| 2010 | 0.23 | 0 | 0.18 |

| Slaps | January | February | March |
|---|---|---|---|
| 2002 | 0.05 | 0.73 | 0.43 |
| 2003 | 1.17 | 0.28 | NA |
| 2004 | 0.24 | 0 | 1.61 |
| 2005 | 0 | 0.2 | 0 |
| 2006 | 0.05 | 0.41 | 0.7 |
| 2007 | 0.74 | 0 | 1.23 |
| 2008 | 0.13 | 0.37 | 0.32 |
| 2009 | 0.19 | 0 | 0.03 |
| 2010 | 2.35 | 0.04 | 0.19 |

| Dives | January | February | March |
|---|---|---|---|
| 2006 | 0 | 0.23 | 0.36 |
| 2007 | 0.47 | 0.05 | 0.28 |
| 2008 | 0 | 0.23 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0.04 | 0 | 0 |






Above: Average number of breaches and slaps sighted per whale by volunteers at Laie Point on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Oahu

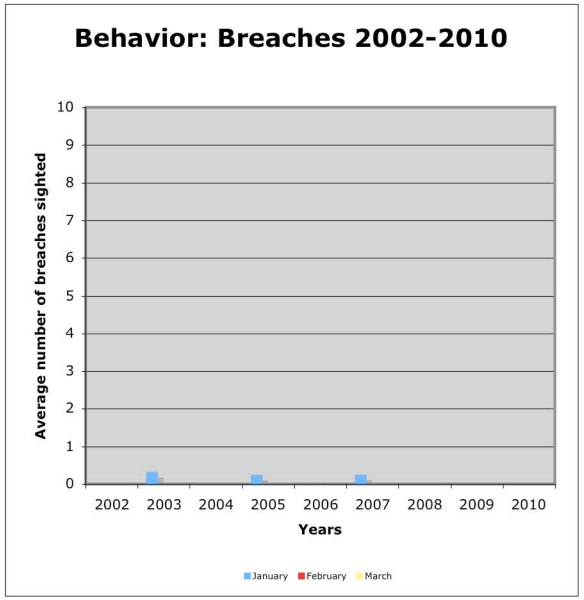
Site #12:Hauula Beach Park

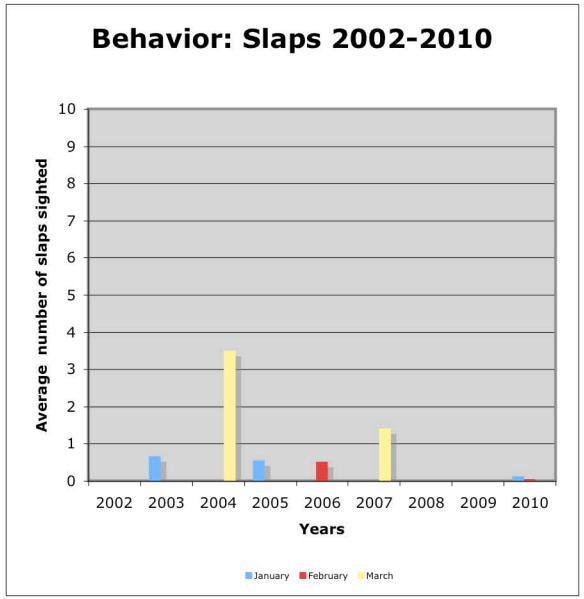
Behavioral Data Analysis

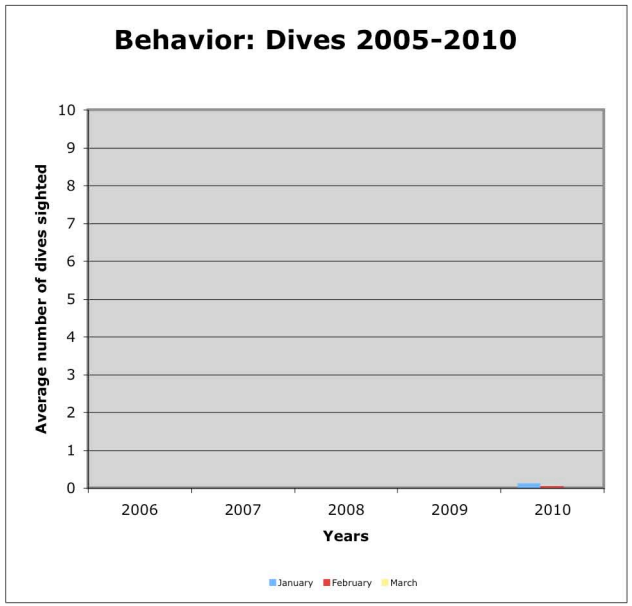
| Breaches | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | NA |
| 2003 | 0.33 | NA | NA |
| 2004 | NA | NA | 0 |
| 2005 | 0.25 | NA | NA |
| 2006 | 0 | 0.01 | 0 |
| 2007 | 0.25 | 0 | 0 |
| 2008 | NA | NA | NA |
| 2009 | 0 | 0 | 0 |
| 2010 | 0 | 0 | NA |

| Slaps | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | NA |
| 2003 | 0.67 | NA | NA |
| 2004 | NA | NA | 3.5 |
| 2005 | 0.56 | NA | 0 |
| 2006 | 0 | 0.52 | 0 |
| 2007 | 0 | 0 | 1.42 |
| 2008 | NA | NA | NA |
| 2009 | 0 | 0 | 0 |
| 2010 | 0.13 | 0.06 | NA |

| Dives | January | February | March |
|---|---|---|---|
| 2006 | 0 | 0 | 0 |
| 2007 | 0 | 0 | 0 |
| 2008 | NA | NA | NA |
| 2009 | 0 | 0 | 0 |
| 2010 | 0.13 | 0.06 | NA |






Above: Average number of breaches and slaps sighted per whale by volunteers at Hauula Beach Park on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Oahu

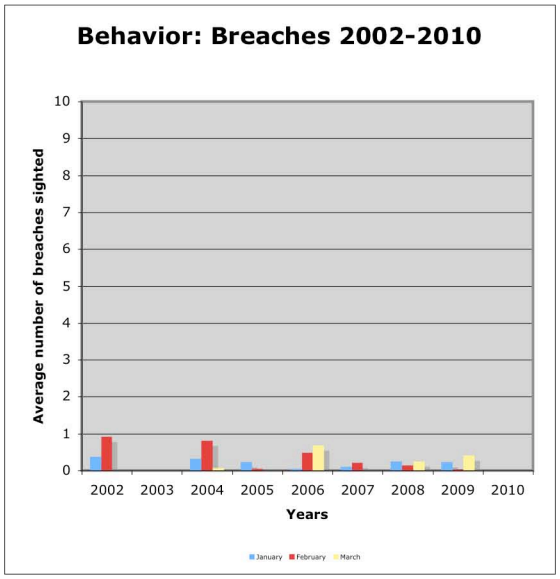
Site #13: Kualoa Ranch

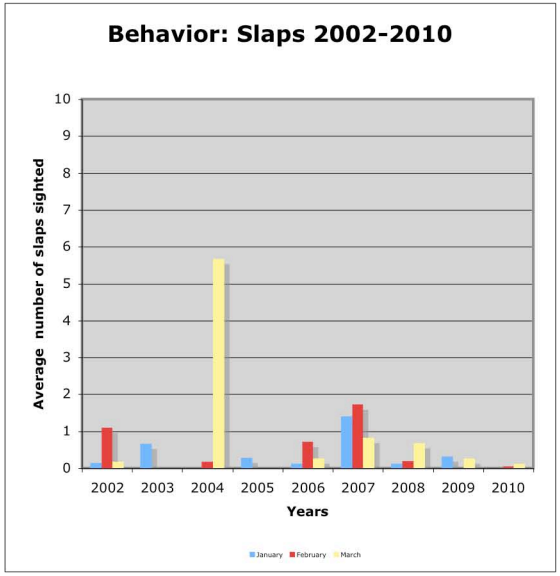
Behavioral Data Analysis

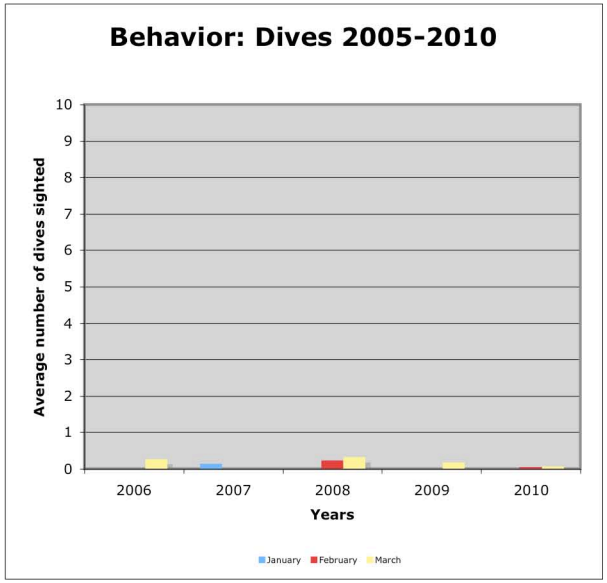
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.38 | 0.93 | 0 |
| 2003 | 0 | NA | NA |
| 2004 | 0.32 | 0.82 | 0.08 |
| 2005 | 0.24 | 0.06 | 0 |
| 2006 | 0.05 | 0.48 | 0.69 |
| 2007 | 0.1 | 0.22 | 0 |
| 2008 | 0.25 | 0.14 | 0.25 |
| 2009 | 0.23 | 0.03 | 0.42 |
| 2010 | N A | 0 | 0 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.15 | 1.11 | 0.18 |
| 2003 | 0.67 | NA | NA |
| 2004 | 0 | 0.18 | 5.67 |
| 2005 | 0.29 | 0 | 0 |
| 2006 | 0.13 | 0.73 | 0.27 |
| 2007 | 1.41 | 1.74 | 0.83 |
| 2008 | 0.13 | 0.2 | 0.69 |
| 2009 | 0.33 | 0 | 0.28 |
| 2010 | NA | 0.06 | 0.13 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0 | 0 | 0.27 |
| 2007 | 0.14 | 0 | 0 |
| 2008 | 0 | 0.23 | 0.33 |
| 2009 | 0 | 0 | 0.18 |
| 2010 | NA | 0.06 | 0.07 |




Above: Average number of breaches and slaps sighted per whale by volunteers at Kualoa Ranch on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Oahu

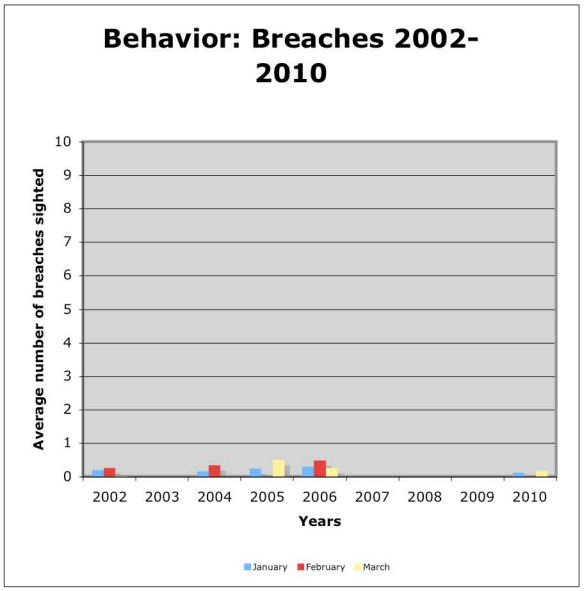
Site #14: Pyramid Rock

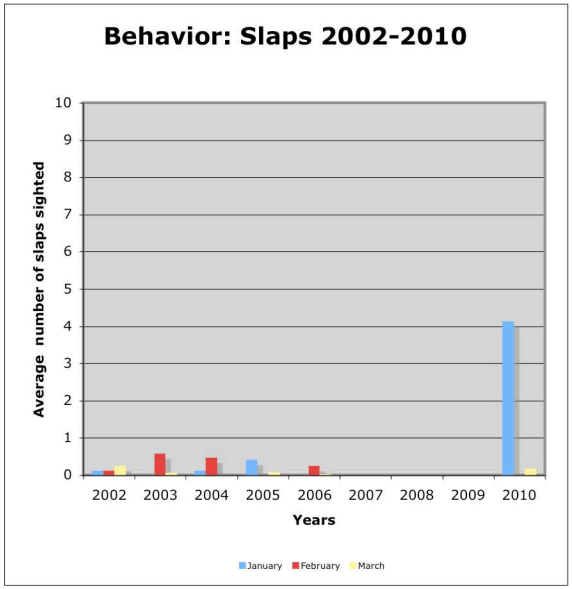
Behavioral Data Analysis

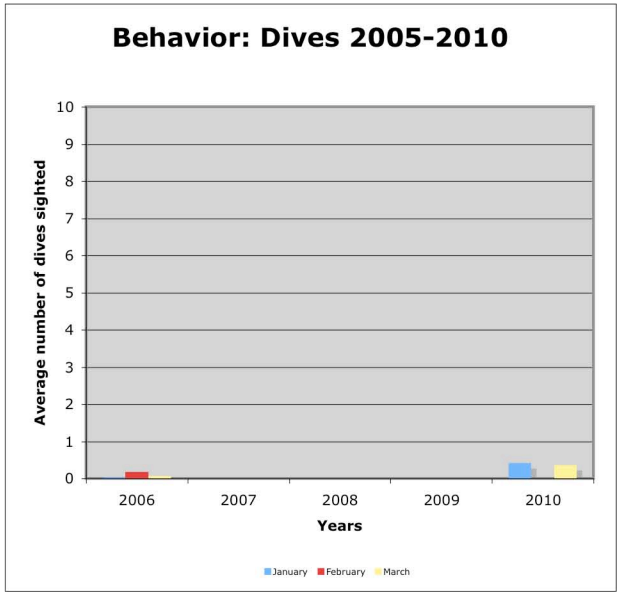
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.2 | 0.26 | 0.02 |
| 2003 | NA | 0 | 0 |
| 2004 | 0.17 | 0.34 | NA |
| 2005 | 0.25 | NA | 0.51 |
| 2006 | 0.31 | 0.49 | 0.27 |
| 2007 | NA | NA | NA |
| 2008 | NA | NA | NA |
| 2009 | NA | NA | NA |
| 2010 | 0.13 | NA | 0.18 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.13 | 0.13 | 0.26 |
| 2003 | NA | 0.59 | 0.08 |
| 2004 | 0.13 | 0.47 | NA |
| 2005 | 0.42 | NA | 0.1 |
| 2006 | 0 | 0.25 | 0.04 |
| 2007 | NA | NA | NA |
| 2008 | NA | NA | NA |
| 2009 | NA | NA | NA |
| 2010 | 4.14 | NA | 0.18 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0.03 | 0.18 | 0.08 |
| 2007 | NA | NA | NA |
| 2008 | NA | NA | NA |
| 2009 | NA | NA | NA |
| 2010 | 0.43 | NA | 0.37 |






Above: Average number of breaches and slaps sighted per whale by volunteers at Pyramid Rock on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Oahu

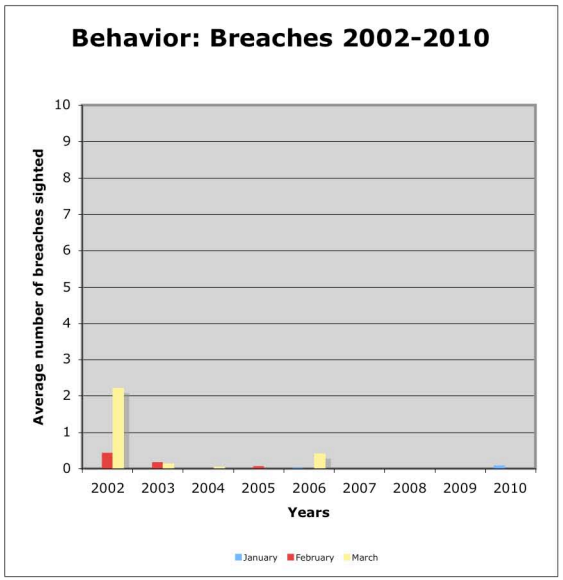
Site #15: Mokapu Point

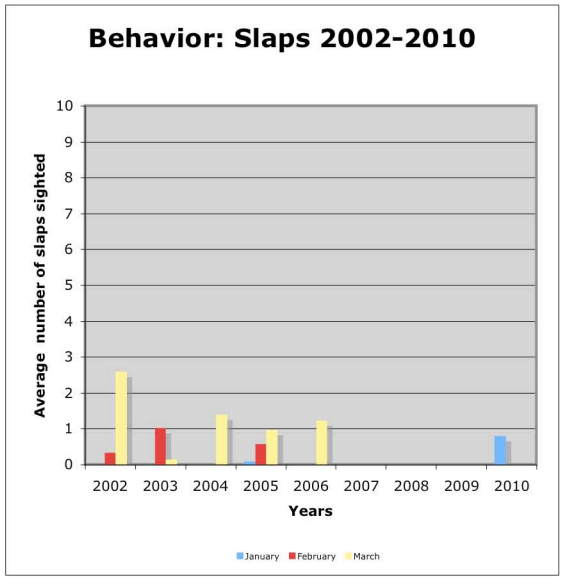
Behavioral Data Analysis

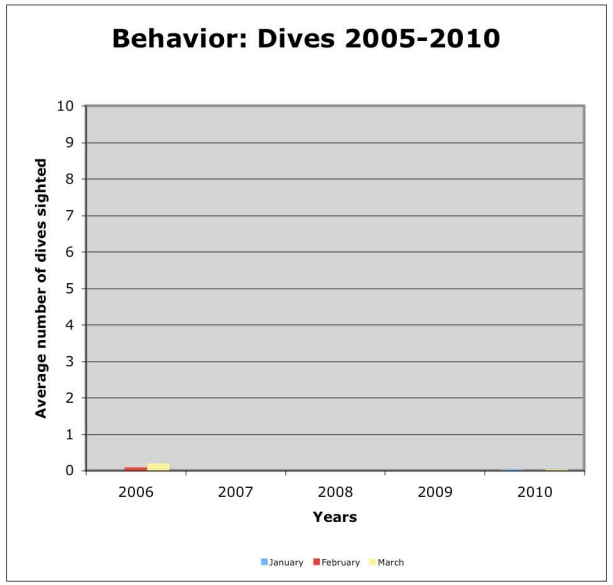
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | NA | 0.45 | 2.22 |
| 2003 | 0 | 0.19 | 0.15 |
| 2004 | NA | NA | 0.05 |
| 2005 | 0 | 0.08 | 0 |
| 2006 | 0.03 | 0 | 0.43 |
| 2007 | NA | NA | NA |
| 2008 | NA | NA | NA |
| 2009 | NA | NA | NA |
| 2010 | 0.09 | 0 | 0 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | NA | 0.33 | 2.59 |
| 2003 | 0 | 1.02 | 0.15 |
| 2004 | NA | NA | 1.4 |
| 2005 | 0.1 | 0.58 | 0.97 |
| 2006 | 0 | 0 | 1.23 |
| 2007 | NA | NA | NA |
| 2008 | NA | NA | NA |
| 2009 | NA | NA | NA |
| 2010 | 0.8 | 0 | 0 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0 | 0.1 | 0.2 |
| 2007 | NA | NA | NA |
| 2008 | NA | NA | NA |
| 2009 | NA | NA | NA |
| 2010 | 0.04 | 0 | 0.04 |



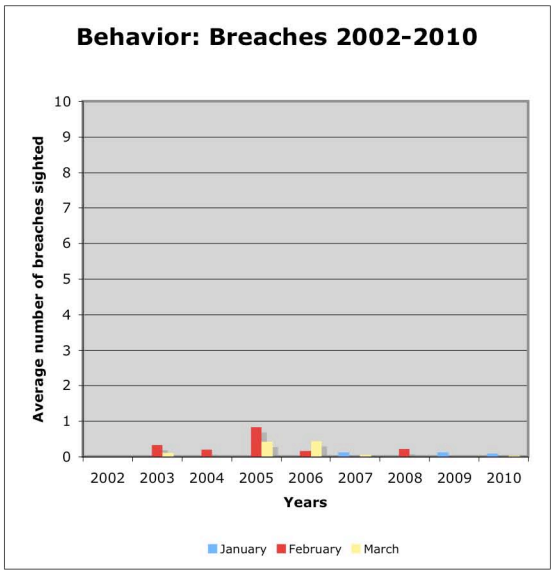

Above: Average number of breaches and slaps sighted per whale by volunteers at Mokapu Point on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

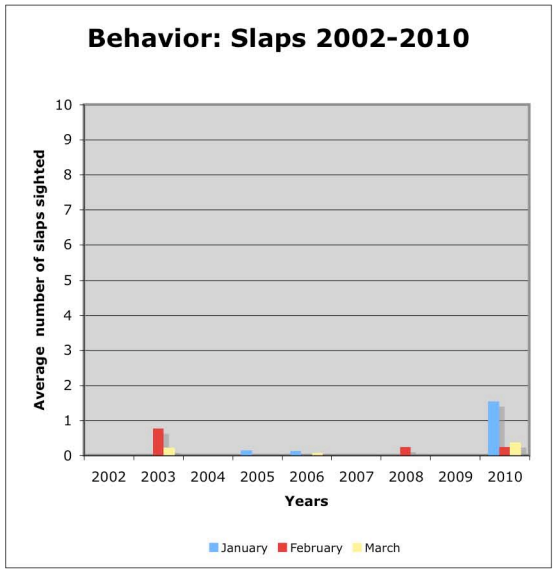
Island:Oahu Site #16: Lanikai Behavioral Data Analysis

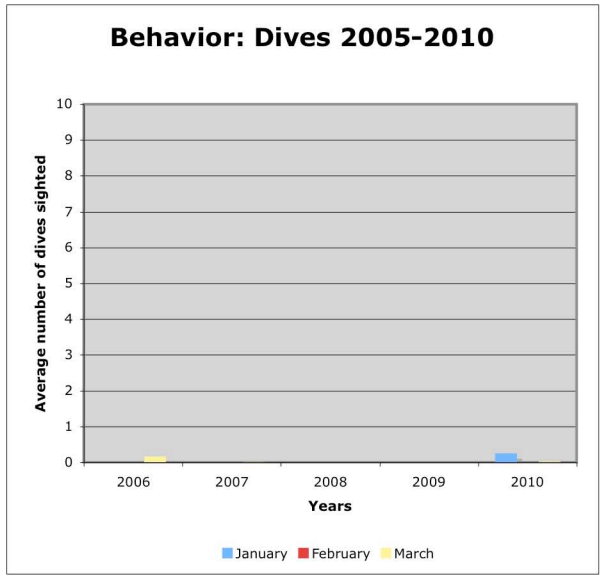
| Breaches | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | NA |
| 2003 | NA | 0.33 | 0.11 |
| 2004 | 0 | 0.2 | 0 |
| 2005 | 0 | 0.83 | 0.43 |
| 2006 | 0 | 0.16 | 0.45 |
| 2007 | 0.13 | 0 | 0.06 |
| 2008 | 0 | 0.22 | 0 |
| 2009 | 0.13 | 0 | 0 |
| 2010 | 0.09 | 0 | 0.04 |

| Slaps | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | NA |
| 2003 | NA | 0.78 | 0.22 |
| 2004 | 0 | 0 | 0 |
| 2005 | 0.16 | 0 | 0 |
| 2006 | 0.13 | 0 | 0.08 |
| 2007 | 0 | 0 | 0 |
| 2008 | 0 | 0.25 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 1.54 | 0.25 | 0.38 |

| Dives | January | February | March |
|---|---|---|---|
| 2006 | 0 | 0 | 0.17 |
| 2007 | 0 | 0 | 0.02 |
| 2008 | 0 | 0 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0.25 | 0 | 0.04 |



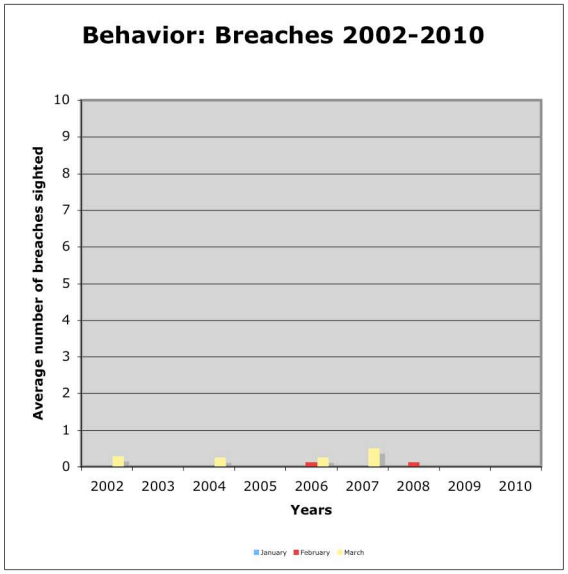

Above: Average number of breaches and slaps sighted per whale by volunteers at Lanikai on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

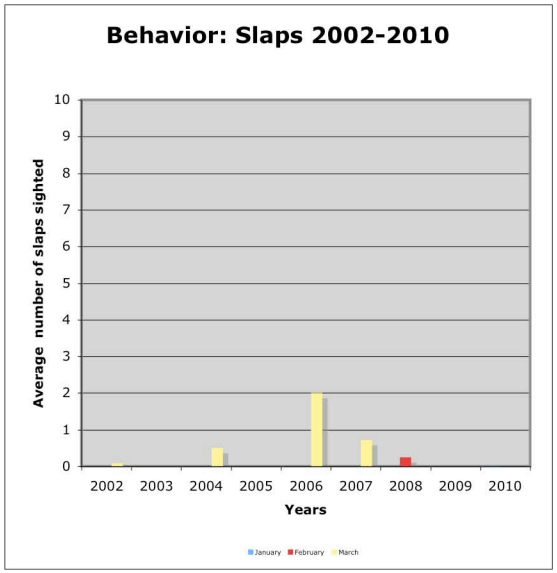
Island: Oahu Site #17: Waimanalo Beach Park Behavioral Data Analysis

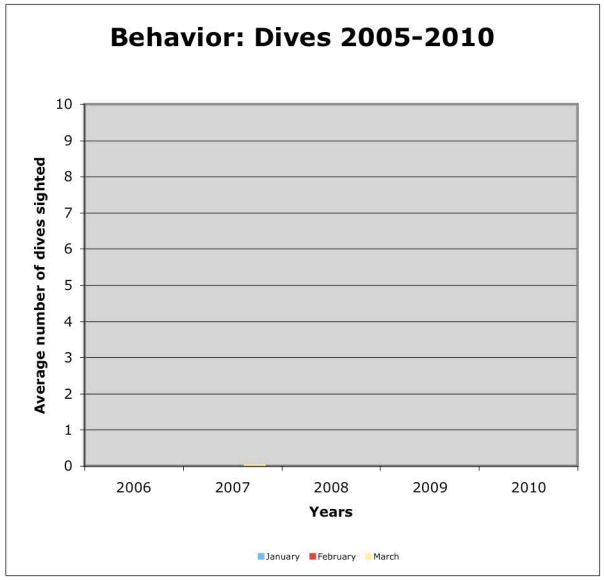
| Breaches | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | 0.29 |
| 2003 | NA | NA | NA |
| 2004 | NA | NA | 0.25 |
| 2005 | NA | 0 | NA |
| 2006 | 0 | 0.13 | 0.25 |
| 2007 | 0 | 0 | 0.5 |
| 2008 | 0 | 0.13 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0 | 0 | 0 |

| Slaps | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | 0.09 |
| 2003 | NA | NA | NA |
| 2004 | NA | NA | 0.5 |
| 2005 | NA | 0 | NA |
| 2006 | 0 | 0 | 2 |
| 2007 | 0 | 0 | 0.72 |
| 2008 | 0 | 0.25 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0.02 | 0 | 0 |

| Dives | January | February | March |
|---|---|---|---|
| 2006 | 0 | 0 | 0 |
| 2007 | 0 | 0 | 0.06 |
| 2008 | 0 | 0 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0 | 0 | 0 |





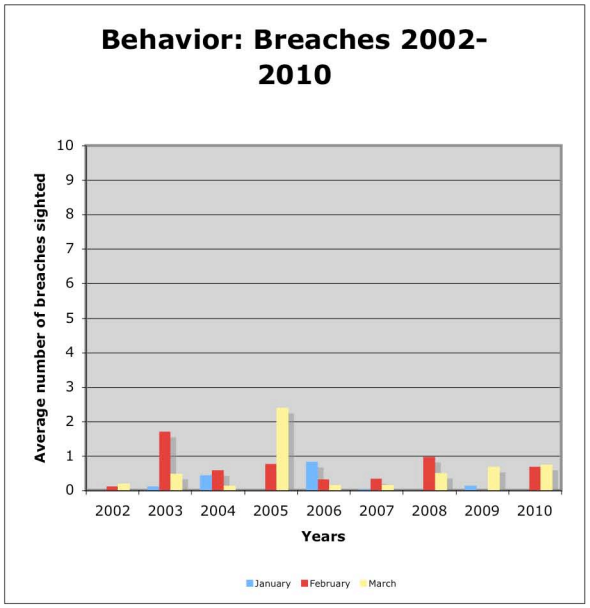

Above: Average number of breaches and slaps sighted per whale by volunteers at Waimanalo Beach Park on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

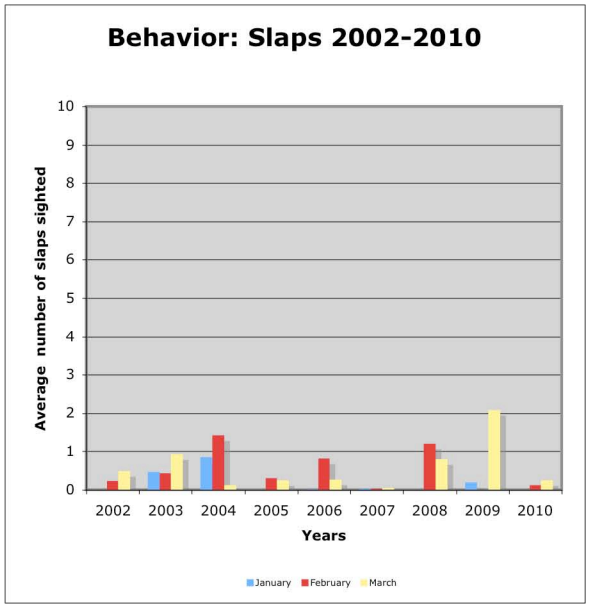
Island: Oahu Site #18: Makapuu Point Lighthouse Behavioral Data Analysis

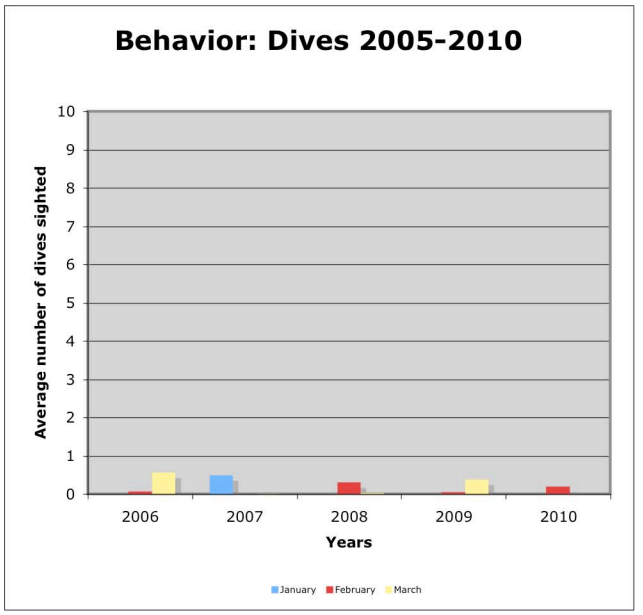
| | Breaches | | |
|---|---|---|---|
| | January | February | March |
| 2002 | NA | 0.12 | 0.21 |
| 2003 | 0.13 | 1.72 | 0.48 |
| 2004 | 0.45 | 0.59 | 0.14 |
| 2005 | 0 | 0.78 | 2.41 |
| 2006 | 0.83 | 0.32 | 0.16 |
| 2007 | 0.05 | 0.35 | 0.17 |
| 2008 | 0 | 0.97 | 0.5 |
| 2009 | 0.14 | 0 | 0.7 |
| 2010 | NA | 0.69 | 0.75 |

| | Slaps | | |
|---|---|---|---|
| | January | February | March |
| 2002 | NA | 0.23 | 0.5 |
| 2003 | 0.48 | 0.44 | 0.93 |
| 2004 | 0.86 | 1.43 | 0.13 |
| 2005 | 0 | 0.32 | 0.25 |
| 2006 | 0.02 | 0.82 | 0.28 |
| 2007 | 0.03 | 0.04 | 0.06 |
| 2008 | 0 | 1.21 | 0.81 |
| 2009 | 0.21 | 0 | 2.09 |
| 2010 | NA | 0.12 | 0.25 |

| | Dives | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0 | 0.07 | 0.57 |
| 2007 | 0.5 | 0 | 0.02 |
| 2008 | 0 | 0.32 | 0.04 |
| 2009 | 0 | 0.06 | 0.38 |
| 2010 | NA | 0.21 | 0 |






Above: Average number of breaches and slaps sighted per whale by volunteers at Makapuu Point Lighthouse on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island:Oahu

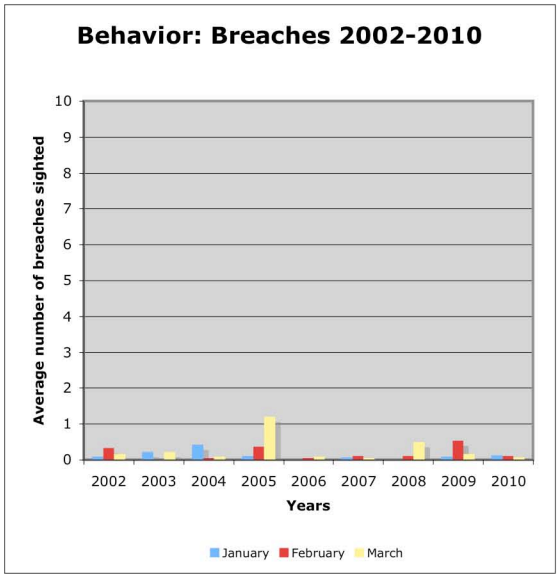
Site #19: Halona Blowhole

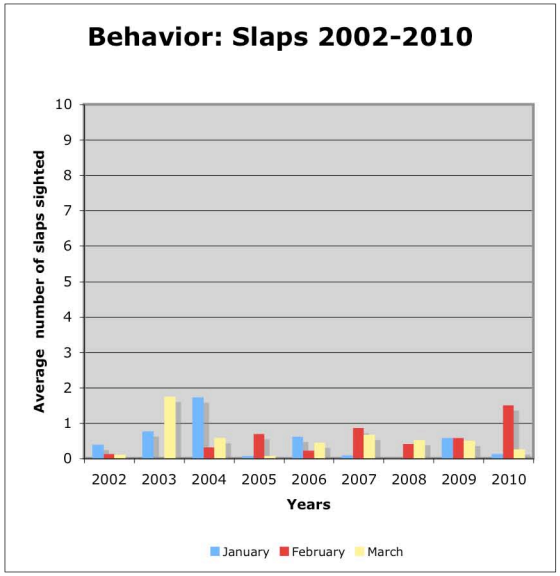
Behavioral Data Analysis

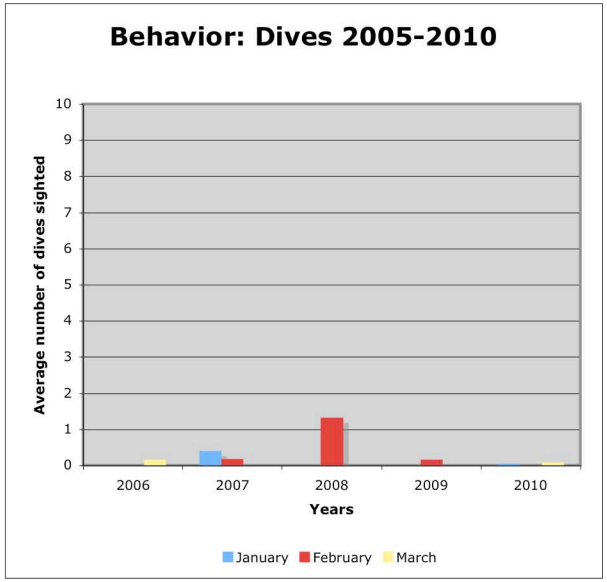
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.1 | 0.34 | 0.17 |
| 2003 | 0.23 | NA | 0.23 |
| 2004 | 0.42 | 0.06 | 0.09 |
| 2005 | 0.12 | 0.38 | 1.2 |
| 2006 | 0 | 0.06 | 0.1 |
| 2007 | 0.07 | 0.11 | 0.06 |
| 2008 | 0 | 0.11 | 0.51 |
| 2009 | 0.09 | 0.53 | 0.17 |
| 2010 | 0.13 | 0.11 | 0.08 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.4 | 0.13 | 0.11 |
| 2003 | 0.77 | NA | 1.75 |
| 2004 | 1.73 | 0.32 | 0.59 |
| 2005 | 0.07 | 0.7 | 0.07 |
| 2006 | 0.63 | 0.23 | 0.45 |
| 2007 | 0.09 | 0.86 | 0.68 |
| 2008 | 0 | 0.41 | 0.52 |
| 2009 | 0.58 | 0.59 | 0.51 |
| 2010 | 0.13 | 1.5 | 0.26 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0 | 0 | 0.16 |
| 2007 | 0.41 | 0.18 | 0 |
| 2008 | 0 | 1.33 | 0 |
| 2009 | 0 | 0.17 | 0 |
| 2010 | 0.06 | 0 | 0.09 |






Above: Average number of breaches and slaps sighted per whale by volunteers at Halona Blowhole on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Oahu

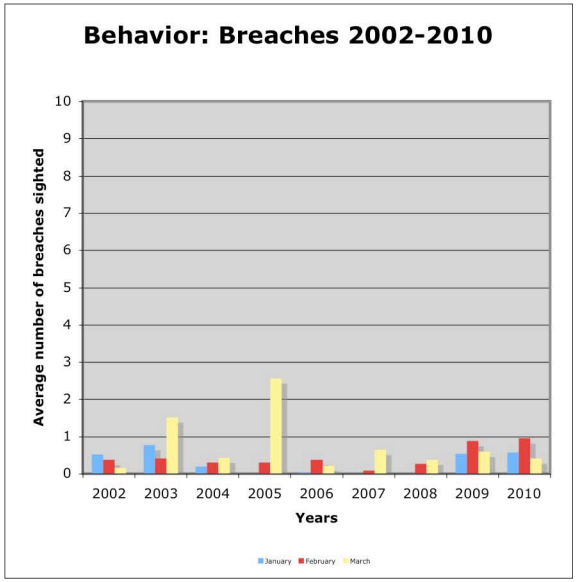
Site #20: Lanai Lookout

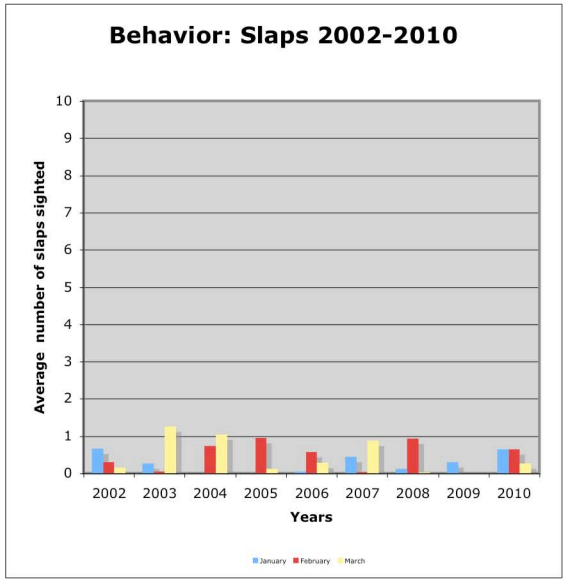
Behavioral Data Analysis

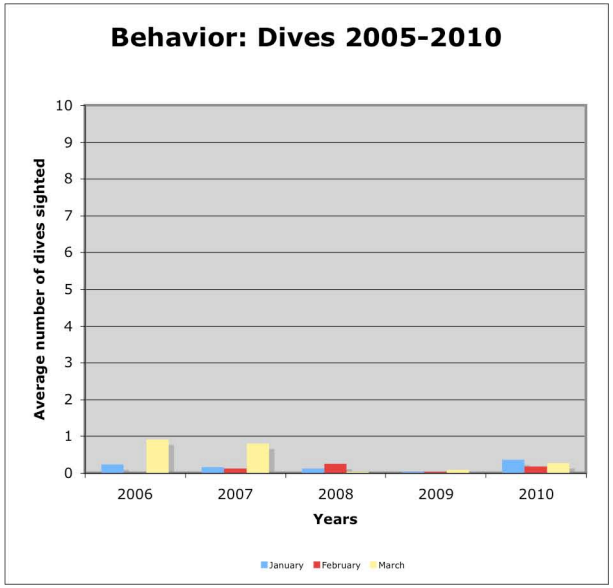
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.53 | 0.38 | 0.17 |
| 2003 | 0.77 | 0.42 | 1.52 |
| 2004 | 0.2 | 0.31 | 0.43 |
| 2005 | 0 | 0.31 | 2.56 |
| 2006 | 0.03 | 0.38 | 0.21 |
| 2007 | 0 | 0.09 | 0.66 |
| 2008 | 0 | 0.27 | 0.38 |
| 2009 | 0.55 | 0.88 | 0.6 |
| 2010 | 0.57 | 0.95 | 0.42 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.67 | 0.31 | 0.17 |
| 2003 | 0.27 | 0.05 | 1.26 |
| 2004 | 0 | 0.74 | 1.04 |
| 2005 | 0 | 0.96 | 0.13 |
| 2006 | 0.05 | 0.57 | 0.29 |
| 2007 | 0.45 | 0.04 | 0.89 |
| 2008 | 0.13 | 0.94 | 0.04 |
| 2009 | 0.31 | 0 | 0 |
| 2010 | 0.65 | 0.65 | 0.28 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0.23 | 0 | 0.92 |
| 2007 | 0.16 | 0.13 | 0.81 |
| 2008 | 0.13 | 0.25 | 0.04 |
| 2009 | 0.04 | 0.04 | 0.09 |
| 2010 | 0.36 | 0.19 | 0.28 |




Above: Average number of breaches and slaps sighted per whale by volunteers at Lanai Lookout on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Oahu

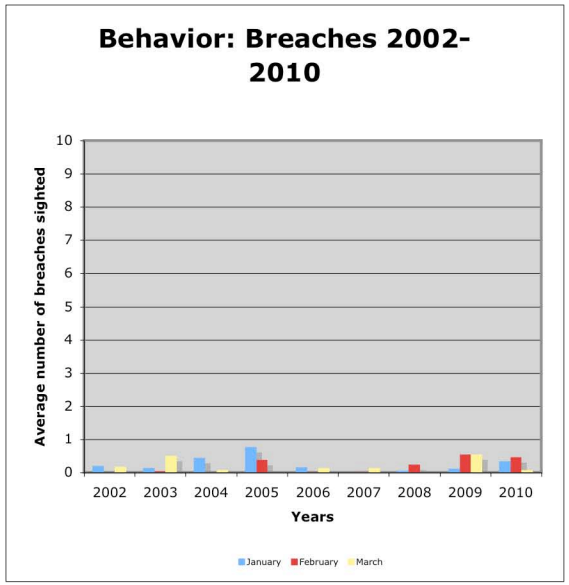
Site #21: Hanauma Bay

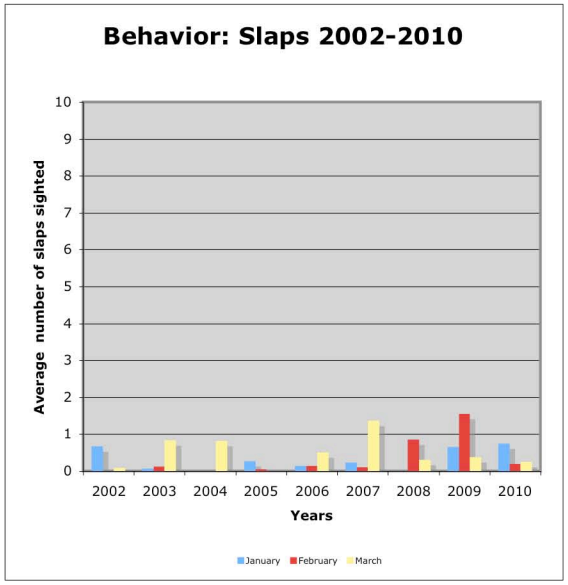
Behavioral Data Analysis

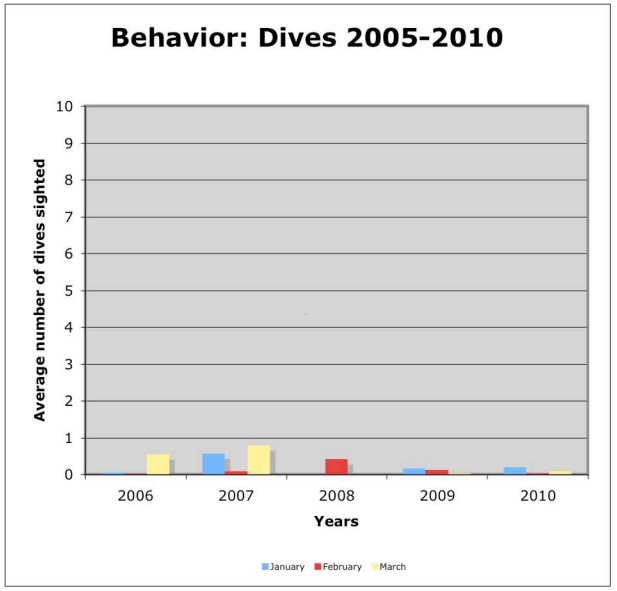
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.21 | NA | 0.18 |
| 2003 | 0.15 | 0.05 | 0.51 |
| 2004 | 0.45 | NA | 0.09 |
| 2005 | 0.78 | 0.38 | NA |
| 2006 | 0.16 | 0.03 | 0.15 |
| 2007 | 0.01 | 0.02 | 0.15 |
| 2008 | 0.06 | 0.25 | 0 |
| 2009 | 0.12 | 0.56 | 0.54 |
| 2010 | 0.34 | 0.46 | 0.09 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | 0.67 | NA | 0.09 |
| 2003 | 0.08 | 0.13 | 0.85 |
| 2004 | 0 | NA | 0.82 |
| 2005 | 0.28 | 0.05 | NA |
| 2006 | 0.14 | 0.15 | 0.51 |
| 2007 | 0.24 | 0.11 | 1.37 |
| 2008 | 0 | 0.86 | 0.31 |
| 2009 | 0.66 | 1.56 | 0.38 |
| 2010 | 0.76 | 0.21 | 0.26 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0.05 | 0.02 | 0.55 |
| 2007 | 0.56 | 0.1 | 0.79 |
| 2008 | 0 | 0.43 | 0 |
| 2009 | 0.17 | 0.13 | 0.03 |
| 2010 | 0.21 | 0.04 | 0.1 |




Above: Average number of breaches and slaps sighted per whale by volunteers at Hanauma Bay on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Oahu

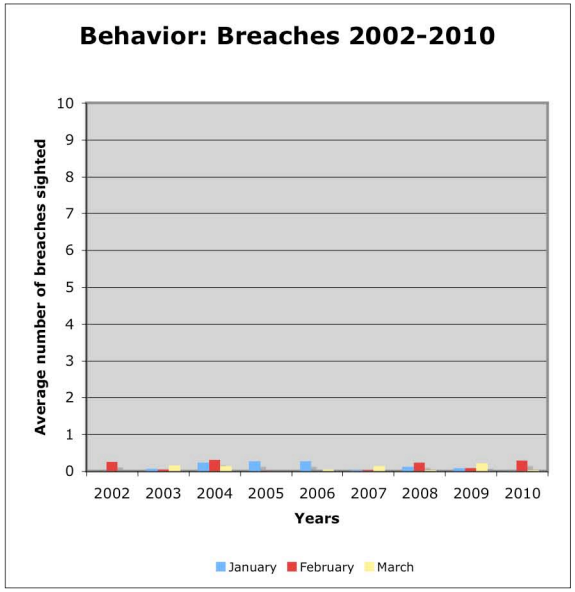
Site #22: Spitting Caves

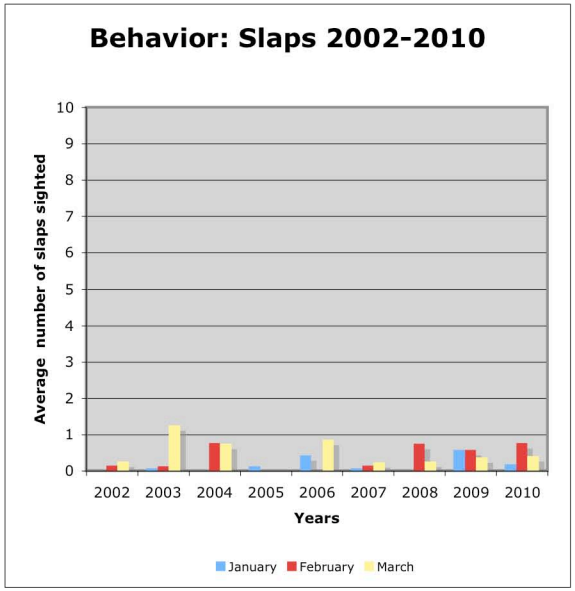
Behavioral Data Analysis

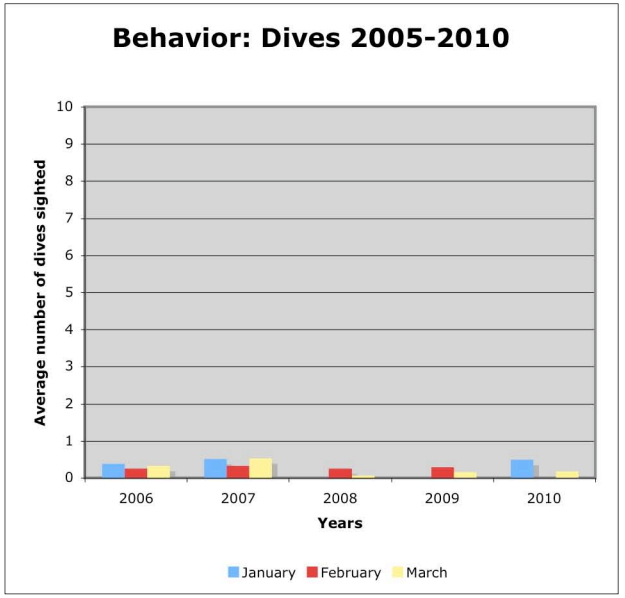
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | NA | 0.26 | 0 |
| 2003 | 0.07 | 0.06 | 0.16 |
| 2004 | 0.25 | 0.31 | 0.15 |
| 2005 | 0.27 | 0.02 | NA |
| 2006 | 0.27 | 0 | 0.06 |
| 2007 | 0.03 | 0.04 | 0.15 |
| 2008 | 0.13 | 0.25 | 0.04 |
| 2009 | 0.1 | 0.09 | 0.23 |
| 2010 | 0.02 | 0.29 | 0.04 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | NA | 0.16 | 0.26 |
| 2003 | 0.07 | 0.14 | 1.26 |
| 2004 | 0 | 0.77 | 0.75 |
| 2005 | 0.13 | 0 | NA |
| 2006 | 0.43 | 0 | 0.87 |
| 2007 | 0.07 | 0.15 | 0.25 |
| 2008 | 0 | 0.76 | 0.27 |
| 2009 | 0.58 | 0.58 | 0.38 |
| 2010 | 0.18 | 0.77 | 0.42 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0.38 | 0.25 | 0.33 |
| 2007 | 0.51 | 0.33 | 0.54 |
| 2008 | 0 | 0.26 | 0.08 |
| 2009 | 0 | 0.3 | 0.16 |
| 2010 | 0.5 | 0 | 0.18 |





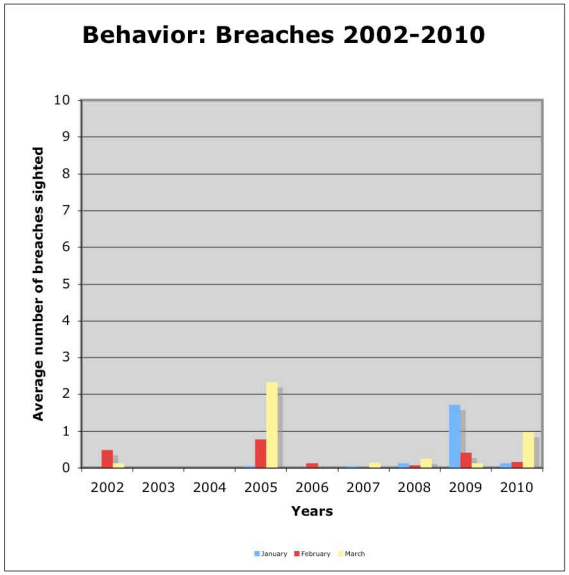

Above: Average number of breaches and slaps sighted per whale by volunteers at Spitting Caves on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

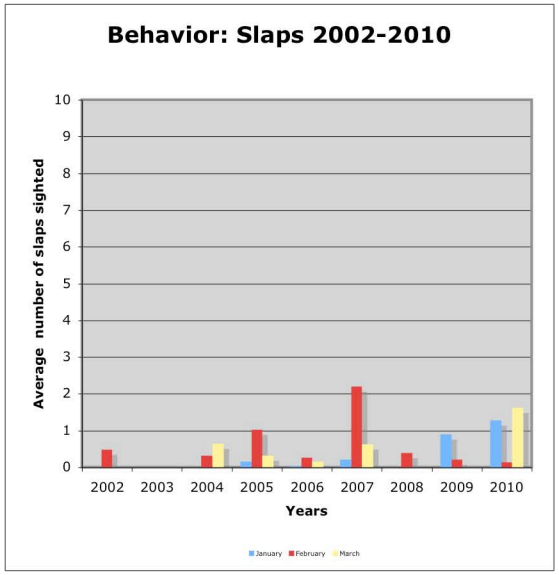
Island: Oahu  Site #23: Diamond Head Lookout  Behavioral Data Analysis

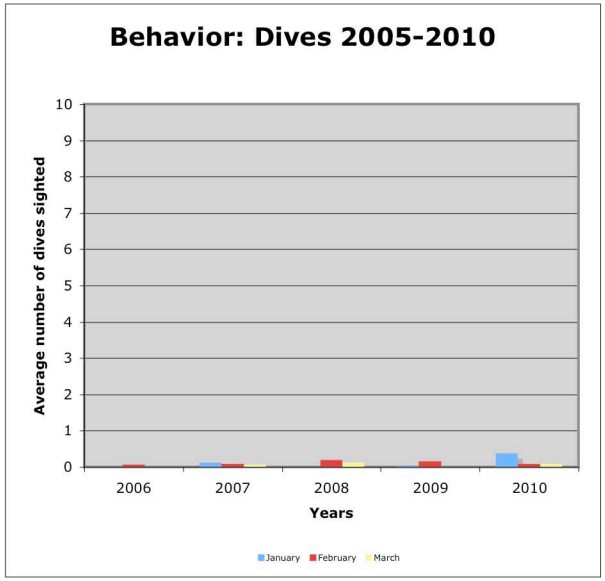
| Breaches | January | February | March |
|---|---|---|---|
| 2002 | NA | 0.49 | 0.13 |
| 2003 | 0 | NA | NA |
| 2004 | NA | 0 | 0 |
| 2005 | 0.05 | 0.77 | 2.33 |
| 2006 | 0 | 0.13 | 0 |
| 2007 | 0.04 | 0 | 0.14 |
| 2008 | 0.13 | 0.07 | 0.25 |
| 2009 | 1.71 | 0.41 | 0.13 |
| 2010 | 0.13 | 0.16 | 0.97 |

| Slaps | January | February | March |
|---|---|---|---|
| 2002 | NA | 0.48 | 0 |
| 2003 | 0 | NA | NA |
| 2004 | NA | 0.33 | 0.65 |
| 2005 | 0.17 | 1.03 | 0.33 |
| 2006 | 0.03 | 0.27 | 0.16 |
| 2007 | 0.22 | 2.2 | 0.63 |
| 2008 | 0 | 0.4 | 0 |
| 2009 | 0.9 | 0.21 | 0 |
| 2010 | 1.28 | 0.14 | 1.62 |

| Dives | January | February | March |
|---|---|---|---|
| 2006 | 0 | 0.08 | 0 |
| 2007 | 0.12 | 0.09 | 0.08 |
| 2008 | 0 | 0.21 | 0.13 |
| 2009 | 0.04 | 0.17 | 0 |
| 2010 | 0.38 | 0.09 | 0.1 |



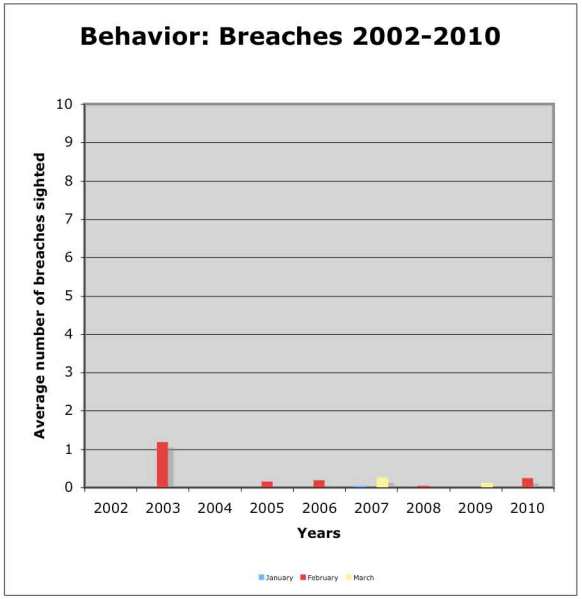

Above: Average number of breaches and slaps sighted per whale by volunteers at Diamond Head Lookout on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

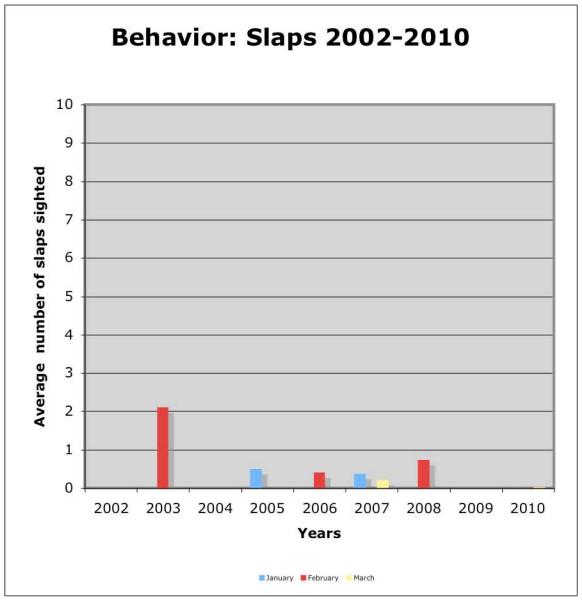
Island: Oahu Site #24:Magic Island Behavioral Data Analysis

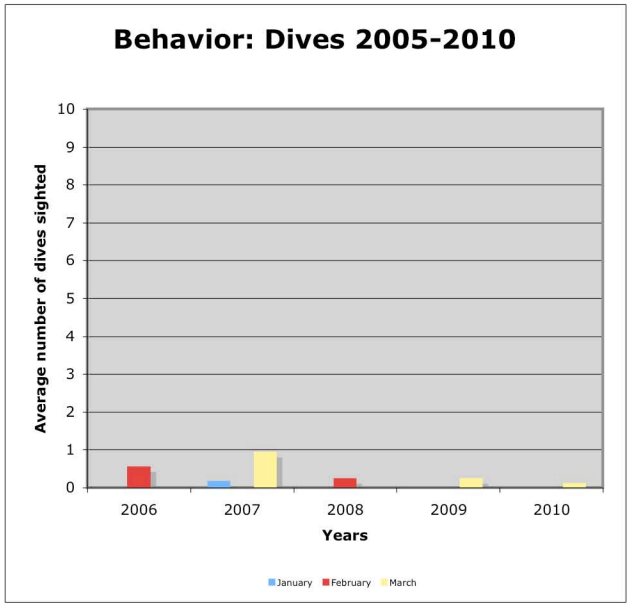
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | NA | NA | NA |
| 2003 | NA | 1.19 | NA |
| 2004 | NA | NA | NA |
| 2005 | 0 | 0.17 | 0 |
| 2006 | 0 | 0.19 | 0 |
| 2007 | 0.06 | 0 | 0.28 |
| 2008 | 0 | 0.06 | 0 |
| 2009 | 0 | 0 | 0.13 |
| 2010 | 0 | 0.25 | 0 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | NA | NA | NA |
| 2003 | NA | 2.12 | NA |
| 2004 | NA | NA | NA |
| 2005 | 0.5 | 0 | 0 |
| 2006 | 0 | 0.41 | 0 |
| 2007 | 0.38 | 0 | 0.22 |
| 2008 | 0 | 0.75 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0 | 0 | 0.03 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0 | 0.56 | 0 |
| 2007 | 0.19 | 0 | 0.96 |
| 2008 | 0 | 0.25 | 0 |
| 2009 | 0 | 0 | 0.25 |
| 2010 | 0 | 0 | 0.13 |






Above: Average number of breaches and slaps sighted per whale by volunteers at Magic Island on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Oahu

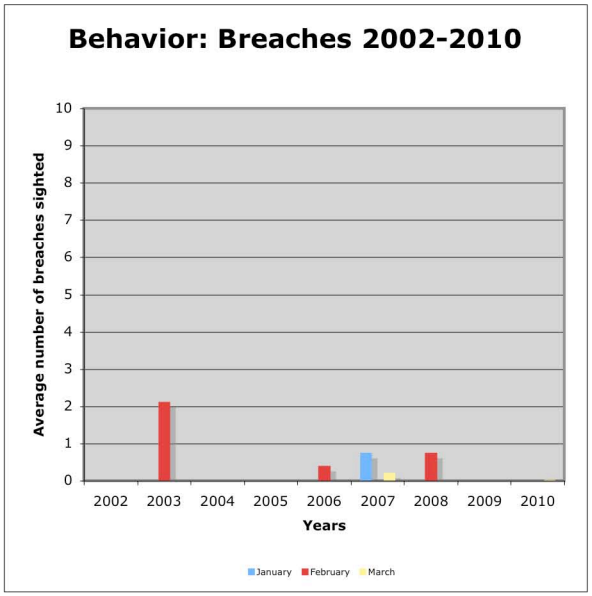
Site #25: Kakaako Beach Park

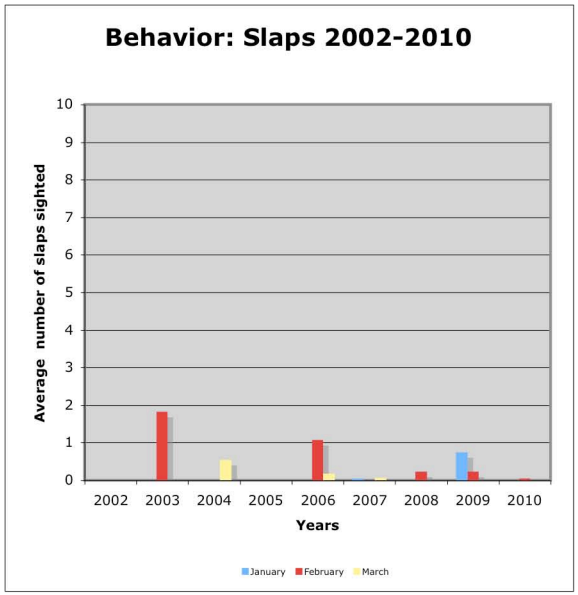
Behavioral Data Analysis

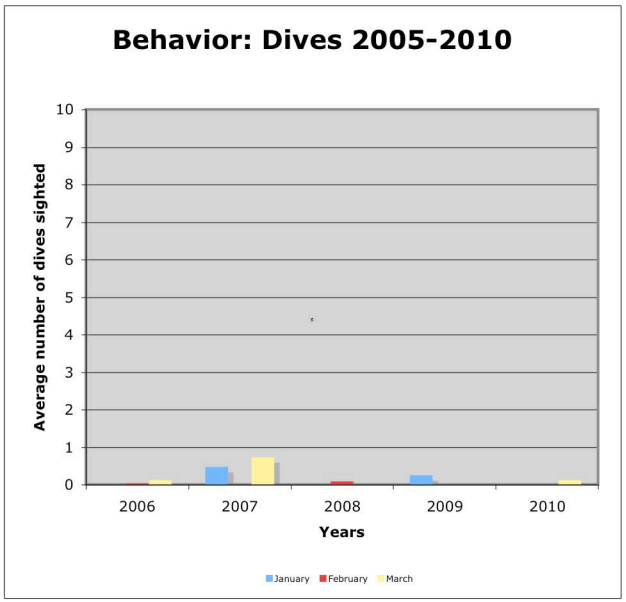
| Breaches | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | NA | NA | NA |
| 2003 | NA | 0.32 | NA |
| 2004 | NA | NA | 0.55 |
| 2005 | 0 | NA | 0.33 |
| 2006 | 0 | 0.31 | 0 |
| 2007 | 0.75 | 0 | 0.25 |
| 2008 | 0 | 0 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | NA | 0 | 0 |

| Slaps | | | |
|---|---|---|---|
| | January | February | March |
| 2002 | NA | NA | NA |
| 2003 | NA | 1.84 | NA |
| 2004 | NA | NA | 0.55 |
| 2005 | 0 | NA | 0 |
| 2006 | 0 | 1.08 | 0.19 |
| 2007 | 0.06 | 0 | 0.08 |
| 2008 | 0 | 0.23 | 0 |
| 2009 | 0.75 | 0.23 | 0 |
| 2010 | NA | 0.06 | 0 |

| Dives | | | |
|---|---|---|---|
| | January | February | March |
| 2006 | 0 | 0.04 | 0.13 |
| 2007 | 0.48 | 0 | 0.73 |
| 2008 | 0 | 0.1 | 0 |
| 2009 | 0.25 | 0 | 0 |
| 2010 | NA | 0 | 0.13 |




Above: Average number of breaches and slaps sighted per whale by volunteers at Kakaako Beach Park on Oahu for the years 2002-2010. Dives were only recorded from 2006-2010.

# Hawaii Island

## Behavior Data Analysis by Site

## January, February and March

## Breaches: 2002-2010

## Slaps: 2002-2010

## Dives: 2006-2010

Doug Perrine/ HWRF/
Seapics.com/NOAA Fisheries
Permit # 882

Doug Perrine/ HWRF/
Seapics.com/NOAA Fisheries
Permit # 882

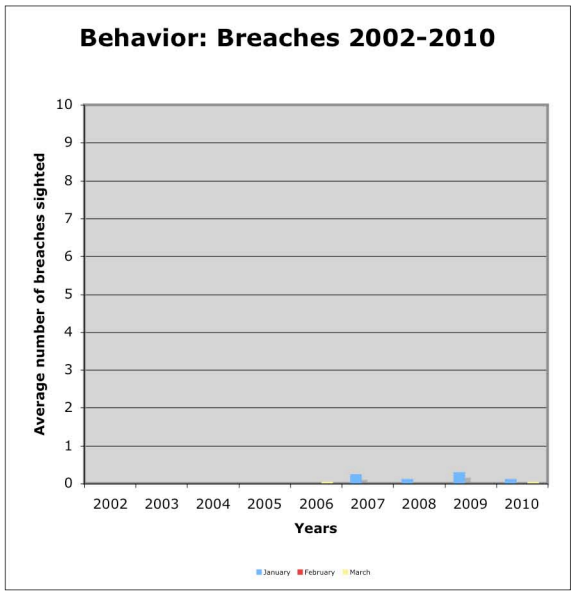
Flip Nicklin/ Minden
Picutres/NOAA Fisheries
Permit # 987

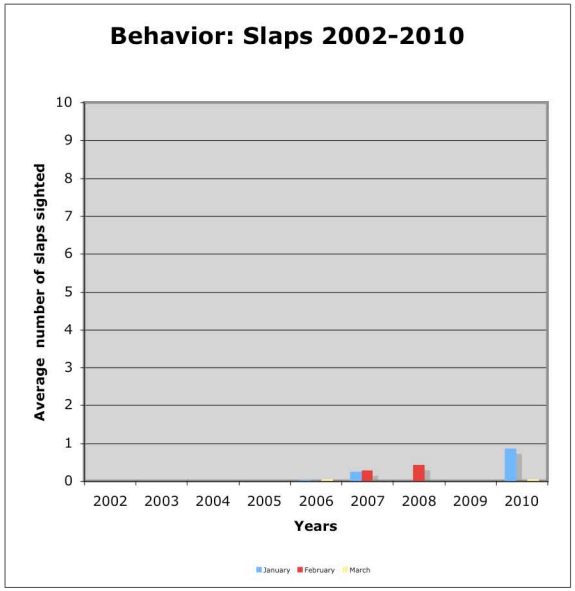
Island: Hawaii Site #1: Punaluu Black Sand Beach Park Behavioral Data Analysis

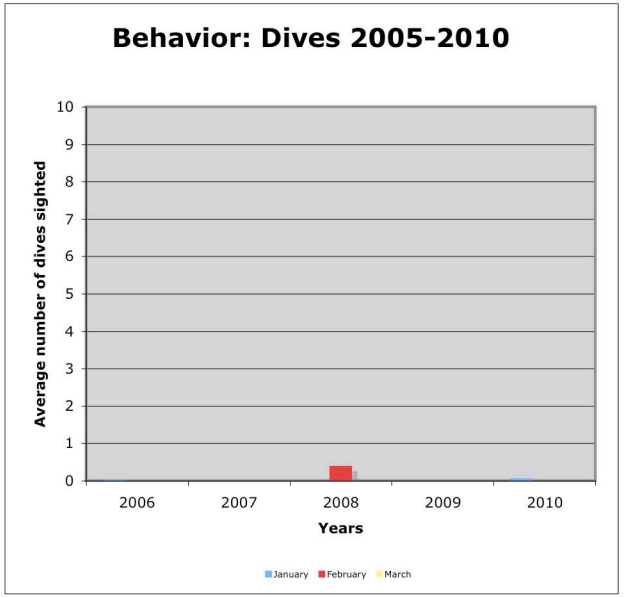
| Breaches | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | NA |
| 2003 | NA | NA | NA |
| 2004 | NA | NA | NA |
| 2005 | 0 | NA | NA |
| 2006 | 0 | 0 | 0.06 |
| 2007 | 0.25 | 0 | 0 |
| 2008 | 0.13 | 0 | 0 |
| 2009 | 0.31 | 0 | 0 |
| 2010 | 0.13 | 0 | 0.06 |

| Slaps | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | NA |
| 2003 | NA | NA | NA |
| 2004 | NA | NA | NA |
| 2005 | 0 | NA | NA |
| 2006 | 0.04 | 0 | 0.06 |
| 2007 | 0.25 | 0.29 | 0 |
| 2008 | 0 | 0.43 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0.86 | 0 | 0.06 |

| Dives | January | February | March |
|---|---|---|---|
| 2006 | 0.04 | 0 | 0 |
| 2007 | 0 | 0 | 0 |
| 2008 | 0 | 0.4 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0.08 | 0 | 0 |






Above: Average number of breaches and slaps sighted per whale by volunteers at Punaluu Black Sand Beach Park on Hawaii for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Hawaii

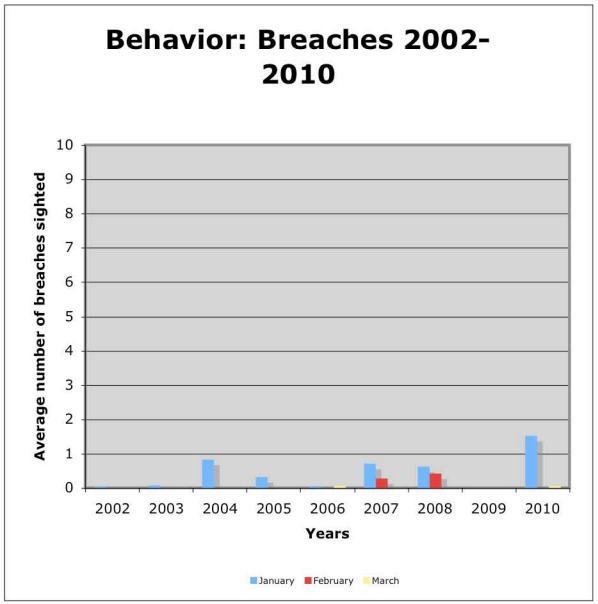
Site #2: Ka Lae Park

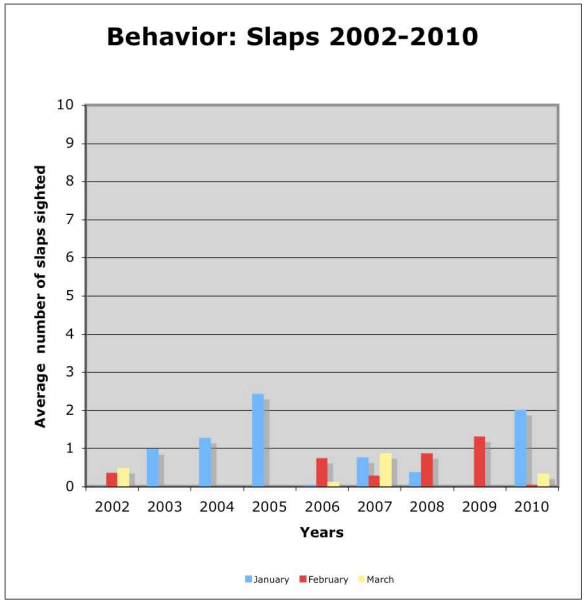
Behavioral Data Analysis

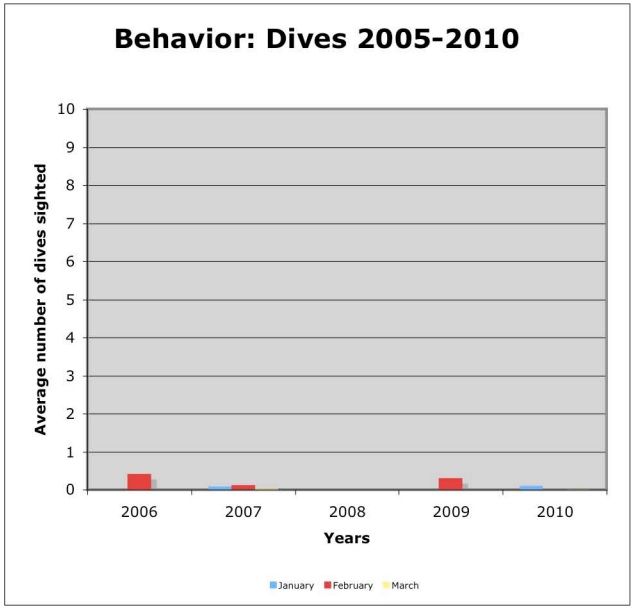
| Breaches | January | February | March |
|---|---|---|---|
| 2002 | 0.05 | 0.06 | 0.04 |
| 2003 | 0.08 | NA | NA |
| 2004 | 0.83 | NA | NA |
| 2005 | 0.32 | 0.17 | 0 |
| 2006 | 0.06 | 0.11 | 0 |
| 2007 | 0.72 | 0.5 | 0.03 |
| 2008 | 0.63 | 1.23 | 0 |
| 2009 | 0 | 0.14 | 0 |
| 2010 | 1.53 | 0.13 | 0.27 |

| Slaps | January | February | March |
|---|---|---|---|
| 2002 | 0.01 | 0.37 | 0.5 |
| 2003 | 0.99 | NA | NA |
| 2004 | 1.28 | NA | NA |
| 2005 | 2.44 | 0 | 0 |
| 2006 | 0.06 | 0.75 | 0.13 |
| 2007 | 0.77 | 0.29 | 0.88 |
| 2008 | 0.38 | 0.88 | 0 |
| 2009 | 0 | 1.32 | 0 |
| 2010 | 2.02 | 0.05 | 0.35 |

| Dives | January | February | March |
|---|---|---|---|
| 2006 | 0 | 0.43 | 0 |
| 2007 | 0.1 | 0.12 | 0.03 |
| 2008 | 0 | 0 | 0 |
| 2009 | 0 | 0.31 | 0 |
| 2010 | 0.11 | 0 | 0.02 |






Above: Average number of breaches and slaps sighted per whale by volunteers at Ka Lae Park on Hawaii for the years 2002-2010. Dives were only recorded from 2006-2010.

Island: Hawaii

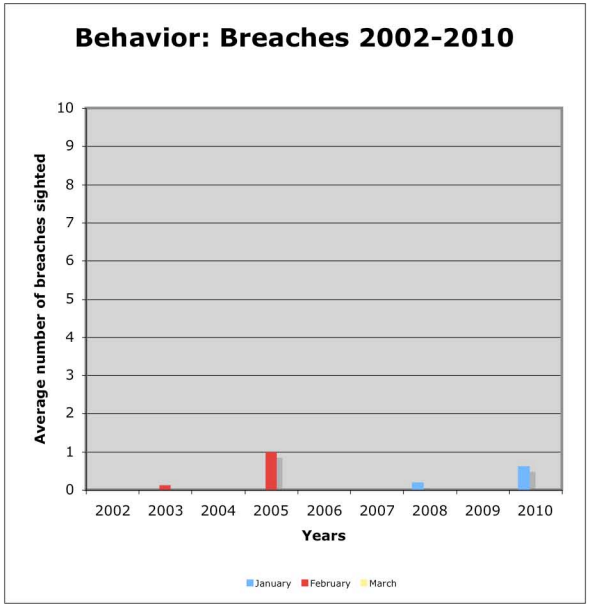
Site #3: Milolii Lookout

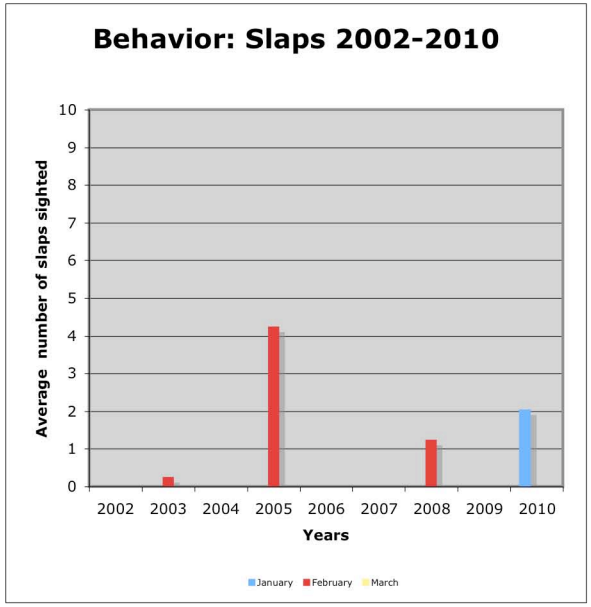
Behavioral Data Analysis

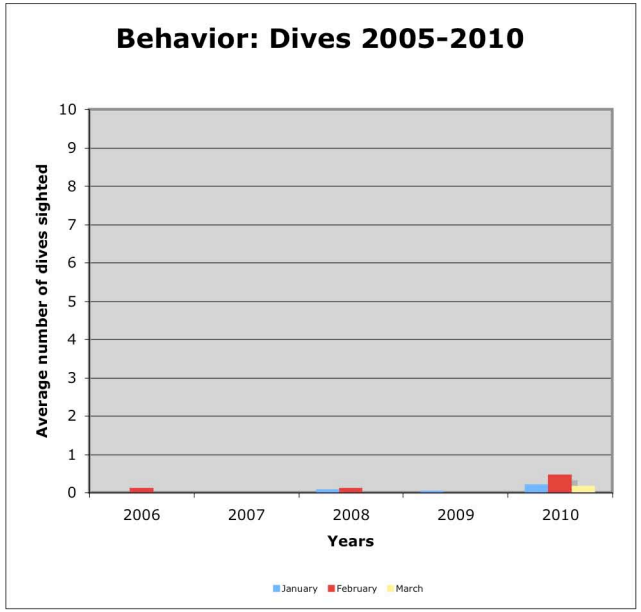
| Breaches | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | NA |
| 2003 | NA | 0.12 | NA |
| 2004 | NA | NA | NA |
| 2005 | NA | 1 | NA |
| 2006 | 0 | 0 | 0 |
| 2007 | NA | NA | NA |
| 2008 | 0.2 | 0 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 0.63 | 0 | 0 |

| Slaps | January | February | March |
|---|---|---|---|
| 2002 | NA | NA | NA |
| 2003 | NA | 0.27 | NA |
| 2004 | NA | NA | NA |
| 2005 | NA | 4.25 | NA |
| 2006 | 0 | 0 | 0 |
| 2007 | NA | NA | NA |
| 2008 | 0 | 1.25 | 0 |
| 2009 | 0 | 0 | 0 |
| 2010 | 2.05 | 0 | 0 |

| Dives | January | February | March |
|---|---|---|---|
| 2006 | 0 | 0.13 | 0 |
| 2007 | NA | NA | NA |
| 2008 | 0.1 | 0.13 | 0 |
| 2009 | 0.06 | 0 | 0 |
| 2010 | 0.22 | 0.47 | 0.19 |






Above: Average number of breaches and slaps sighted per whale by volunteers at Milolii Lookout on Hawaii for the years 2002-2010. Dives were only recorded from 2006-2010.