

Demographic Analysis of Boats in Southern Monterey Bay

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Abstract: A demographic analysis of boats in southern Monterey Bay has been done over the period January 1, 2006 to July 30, 2006 and is continuing through the end of 2006. Boats were categorized by location, size, and usage (diving vs. fishing). Extrapolating the results to the full year, the summary of observations is:

- Breakwater to Charthouse Restaurant: 104 dive boats, 18 fishing boats, 229 divers, 36 fishers.
- Charthouse to Lovers Point: 197 dive boats, 82 fishing boats, 792 divers, 182 fishers.
- Lovers Point to Point Piños: 97 dive boats, 175 fishing boats, 732 divers, 381 fishers.

Over the period, there were significantly more boats used for diving than for fishing, and there were an order of magnitude more divers than fishers.

As part of the process mandated by the California Marine Life Protection Act, the Department of Fish and Game is in the process of creating additional Marine Protected Areas on Central California. There has been a good deal of controversy over the makeup of those MPAs in the southern part of Monterey Bay, from the Monterey Breakwater to Pt. Piños.

I'm a nonconsumptive SCUBA diver, and I launch my Boston Whaler in the Monterey area almost every weekend day when the sea conditions allow diving. In order to determine the approximate ration of consumptive to nonconsumptive users in that area, I've been counting boats during calendar year 2006. My methodology is simple: each time I pass through that area I visually observe the boats, and classify them in three dimensions: location, usage, and size.

Location: I'm generally concerned with the area from the Monterey Breakwater to Pt. Piños, and out to 60', with allowance for a bit deeper area (to about 80') in the vicinity of Hopkins Deep Reef. This is a typical boundary for MPAs in this area. This area is further subdivided onto three districts: Breakwater to the line of the NW wall of the Charthouse Restaurant, Charthouse to Lovers Pt., and Lovers Pt. to Pt. Piños.

Usage: Usage is subdivided into three groups: dive boats, fishing boats, and everything else. Dive boats are those boats that are anchored (or obviously providing live boat support for submerged divers) and either unoccupied, or occupied by people who are obviously divers. Fishing boats are those boats which are actively fishing, either at anchor, drifting, or trolling, or appear to be preparing to do so. Everything else is just that, and most typically were boats under way to some other location. I did not count the "everything else" group because it wasn't relevant to the question at hand. It should be noted that since my own boat was under way during the count, was therefore never counted. If I had

chosen to count my own boat, it would have increased the medium dive boat numbers. It should also be noted that the “everything else” group includes the numerous recreational kayakers (those not diving, and not fishing).

Size: I subdivided boats into four size groups: kayaks, small, medium, and large. Kayaks were just that: any sit-on or sit-in kayak. It should be noted that the tourist rental kayak fleet was never fishing or diving and was classified as “everything else”. Small meant any boat smaller than my 16’7” Boston Whaler Montauk. When in doubt, inflatable boats (including RIBs) were classified as small. Medium meant any boat as large as or larger than my own boat, but not including commercial charter dive boats and passenger fishing vessels. When in doubt, “hard” boats (that is, not inflatables) were classified as medium. Large meant any commercial charter dive boat or passenger fishing vessel. While this distinction is not strictly based on size (the largest “medium” vessels are larger the smallest “large” vessels), it affects passenger count greatly – the commercial vessels typically carry many more passengers than the recreational vessels of the same size.

My own voyages would usually take me through this area twice in a day, typically about 9:00 a.m. (before the first dive), and again around 11:00 a.m. (after the first dive). Data was recorded in a notebook that I keep on my boat, and periodically transcribed to an Excel spreadsheet which totals each class of boat by area, and estimates the number of people. I assumed 1 person per kayak, 2 per small boat, 3 per medium boat, and 10 per large boat. These numbers are consistent with my experience in the past, and what I’m seeing during my observations.

I made the assumption that all dive boats in this area are nonconsumptive. Most spearfishing is done for halibut, mostly off Del Monte beach. There isn’t a lot of spearfishing for rockfish, cabezon, and ling cod in this area as there just aren’t a lot of rockfish left to shoot.

I intend to continue counting for the remainder of 2006.

As of the most recent data (July 30, 2006), the counts are shown below. It’s obvious that the usage so far this year is overwhelming for diving. It should be noted that a substantial fraction most of the fishing boats were on July 1, the opening day of rockfish season.

The annualized extrapolation was done by assuming that the remaining months of rockfish season will be the same as the one month to date. It should be noted that this is an extrapolation of the observations. Because observations were not made every day, and there were typically only two observations per day, the actual total number of boats, divers and fishers over calendar year 2006 would be considerably higher.

Breakwater to Charthouse

| <i>Rockfish Closed (6 mo.)</i> | Kayak | Small | Medium | Large | Total |
|--------------------------------|-------|-------|--------|-------|-------|
| Dive Boats | 2 | 26 | 3 | 1 | 32 |
| Fishing Boats | 0 | 0 | 0 | 0 | 0 |
| Divers | 2 | 52 | 9 | 10 | 73 |
| Fishers | 0 | 0 | 0 | 0 | 0 |

| <i>Rockfish Open (1 mo.)</i> | Kayak | Small | Medium | Large | Total |
|------------------------------|-------|-------|--------|-------|-------|
| Dive Boats | 1 | 8 | 3 | 0 | 12 |
| Fishing Boats | 0 | 3 | 0 | 0 | 3 |
| Divers | 1 | 16 | 9 | 0 | 26 |
| Fishers | 0 | 6 | 0 | 0 | 6 |

| <i>Annualized Extrapolation</i> | Kayak | Small | Medium | Large | Total |
|---------------------------------|-------|-------|--------|-------|------------|
| Dive Boats | 8 | 74 | 21 | 1 | 104 |
| Fishing Boats | 0 | 18 | 0 | 0 | 18 |
| Divers | 8 | 148 | 63 | 10 | 229 |
| Fishers | 0 | 36 | 0 | 0 | 36 |

Charthouse to Lovers Pt.

| <i>Rockfish Closed (6 mo.)</i> | Kayak | Small | Medium | Large | Total |
|--------------------------------|-------|-------|--------|-------|-------|
| Dive Boats | 0 | 22 | 12 | 25 | 59 |
| Fishing Boats | 0 | 0 | 2 | 2 | 4 |
| Divers | 0 | 44 | 36 | 250 | 330 |
| Fishers | 0 | 0 | 6 | 20 | 26 |

| <i>Rockfish Open (1 mo.)</i> | Kayak | Small | Medium | Large | Total |
|------------------------------|-------|-------|--------|-------|-------|
| Dive Boats | 1 | 11 | 8 | 3 | 23 |
| Fishing Boats | 5 | 3 | 5 | 0 | 13 |
| Divers | 1 | 22 | 24 | 30 | 77 |
| Fishers | 5 | 6 | 15 | 0 | 26 |

| <i>Annualized Extrapolation</i> | Kayak | Small | Medium | Large | Total |
|---------------------------------|-------|-------|--------|-------|------------|
| Dive Boats | 6 | 88 | 60 | 43 | 197 |
| Fishing Boats | 30 | 18 | 32 | 2 | 82 |
| Divers | 6 | 176 | 180 | 430 | 792 |
| Fishers | 30 | 36 | 96 | 20 | 182 |

Lovers Pt. to Pt. Piños

| <i>Rockfish Closed (6 mo.)</i> | Kayak | Small | Medium | Large | Total |
|--------------------------------|--------------|--------------|---------------|--------------|--------------|
| Dive Boats | 3 | 16 | 5 | 25 | 49 |
| Fishing Boats | 6 | 0 | 1 | 0 | 7 |
| Divers | 3 | 32 | 15 | 250 | 300 |
| Fishers | 6 | 0 | 3 | 0 | 9 |

| <i>Rockfish Open (1 mo.)</i> | Kayak | Small | Medium | Large | Total |
|------------------------------|--------------|--------------|---------------|--------------|--------------|
| Dive Boats | 0 | 1 | 0 | 7 | 8 |
| Fishing Boats | 7 | 8 | 13 | 0 | 28 |
| Divers | 0 | 2 | 0 | 70 | 72 |
| Fishers | 7 | 16 | 39 | 0 | 62 |

| <i>Annualized Extrapolation</i> | Kayak | Small | Medium | Large | Total |
|---------------------------------|--------------|--------------|---------------|--------------|--------------|
| Dive Boats | 3 | 22 | 5 | 67 | 97 |
| Fishing Boats | 48 | 48 | 79 | 0 | 175 |
| Divers | 3 | 44 | 15 | 670 | 732 |
| Fishers | 48 | 96 | 237 | 0 | 381 |

Breakwater to Pt. Piños

| <i>Rockfish Closed (6 mo.)</i> | Kayak | Small | Medium | Large | Total |
|--------------------------------|--------------|--------------|---------------|--------------|--------------|
| Dive Boats | 5 | 64 | 20 | 51 | 140 |
| Fishing Boats | 6 | 0 | 3 | 2 | 11 |
| Divers | 5 | 128 | 60 | 510 | 703 |
| Fishers | 6 | 0 | 9 | 20 | 35 |

| <i>Rockfish Open (1 mo.)</i> | Kayak | Small | Medium | Large | Total |
|------------------------------|--------------|--------------|---------------|--------------|--------------|
| Dive Boats | 2 | 20 | 11 | 10 | 43 |
| Fishing Boats | 12 | 14 | 18 | 0 | 44 |
| Divers | 2 | 40 | 33 | 100 | 175 |
| Fishers | 12 | 28 | 54 | 0 | 94 |

| <i>Annualized Extrapolation</i> | Kayak | Small | Medium | Large | Total |
|---------------------------------|--------------|--------------|---------------|--------------|--------------|
| Dive Boats | 17 | 184 | 86 | 111 | 398 |
| Fishing Boats | 78 | 84 | 111 | 2 | 275 |
| Divers | 17 | 368 | 258 | 1110 | 1753 |
| Fishers | 78 | 168 | 333 | 20 | 599 |