

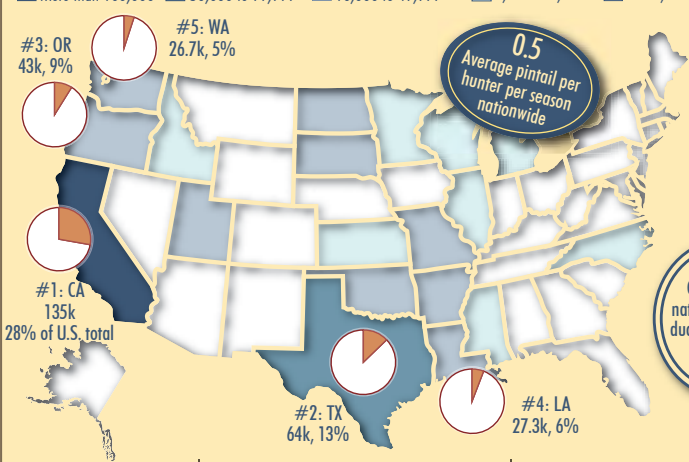
DUCK NERDERY POPULATIONS & HARVEST

Pintail and mallard are arguably the two most important duck species to California hunters. Here we look at the interplay of their breeding populations and harvest over the years. Harvest estimates and mid-continental population counts come from the U.S. Fish & Wildlife Service; California counts come from the California Department of Fish & Wildlife.

2016-17 PINTAIL HARVEST IN THE U.S.

Something to keep in mind if you're depressed about the reduced pintail limit: We kill far more pintail than any other state, and we have the highest average pintail per hunter per season at 2.9.

More than 100,000 50,000 to 99,999 10,000 to 49,999 5,000 to 9,999 0 to 9,999



PINTAIL POPULATION AND CALIFORNIA HARVEST

Q: What are we looking at here?

A: The top line is the breeding population count in the "Traditional Survey Area," where most pintails are born (see map on facing page). The bottom line is the estimated California harvest. Generally, our harvest tracks with the populations.

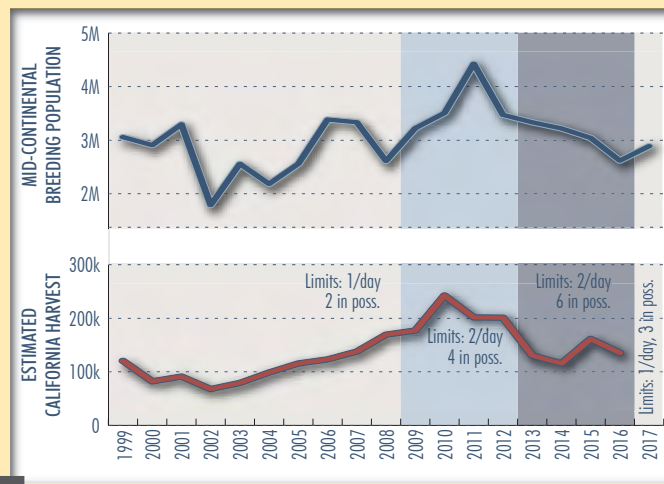
Q: What else should we look at?

A: Take a look at limits, which are represented in shaded backgrounds:

— Note that when the daily bag limit doubled from 1 to 2, the harvest did not double, which tells us that just because the limit is 2 doesn't mean every hunter gets 2 all the time.

— During that same period, the breeding population hit its highest count since 1980 (when, incidentally, the daily limit of pintail was 7).

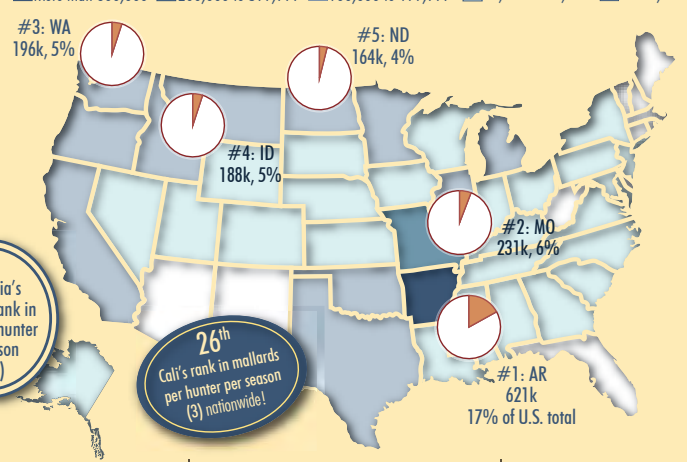
— Under the old regs-setting process, the lower breeding population count in 2016 would have led to a daily limit of 1 last season, but instead, our limit was 2 because regulations are now set based on the previous year's breeding population count. Nevertheless, California's harvest went down in 2016-17, and the breeding population increased this spring.



2016-17 MALLARD HARVEST IN THE U.S.

California ranked 7th in the nation last season for mallard harvest, with hunters bagging an estimated 143,603 — 4% of the U.S. total — making it our third most-harvested species (it ranked fourth on state-run refuges).

More than 600,000 200,000 to 599,999 100,000 to 199,999 19,000 to 99,999 0 to 9,999



CALIFORNIA MALLARD POPULATION AND HARVEST

Q: What's the upshot?

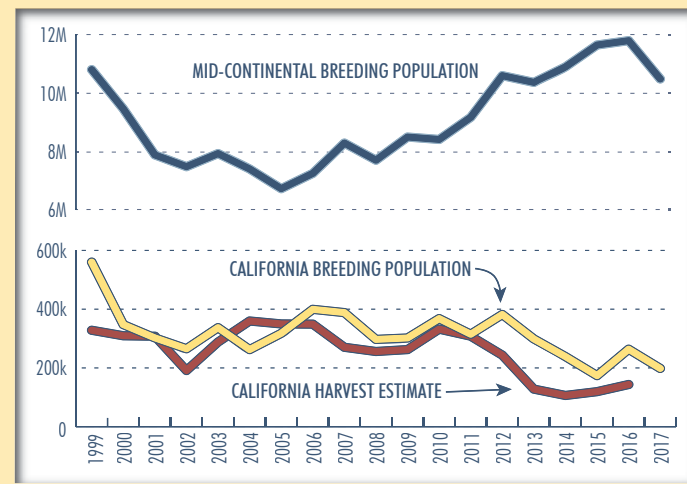
A: California's mallard harvest tracks more closely with the California mallard breeding population than the mid-continental mallard breeding population. This is consistent with numerous studies indicating that about 70% of mallards killed here are from here.

Q: Do the bottom lines mean we're killing all the California mallards?

A: No! That yellow line is a count of adults in the spring in very specific areas, not a census of the entire California population, and more importantly, it doesn't include all the ducklings they produced!

Q: If our mallard population is declining, should we still be killing 7 a day?

A: The question is *are you killing seven a day?* Most hunters aren't unless they're lucky enough to hunt great mallard habitat. Harvest stats suggest California hunters bag 3.1 ducks of any species per outing. And here's something that's just as important: **When the local mallard breeding population declines, we don't keep killing the same number of mallards, despite the fact that the limit is still 7.** In that sense, harvest is somewhat self-regulating.



7 TO 1 A TALE OF TWO SPECIES

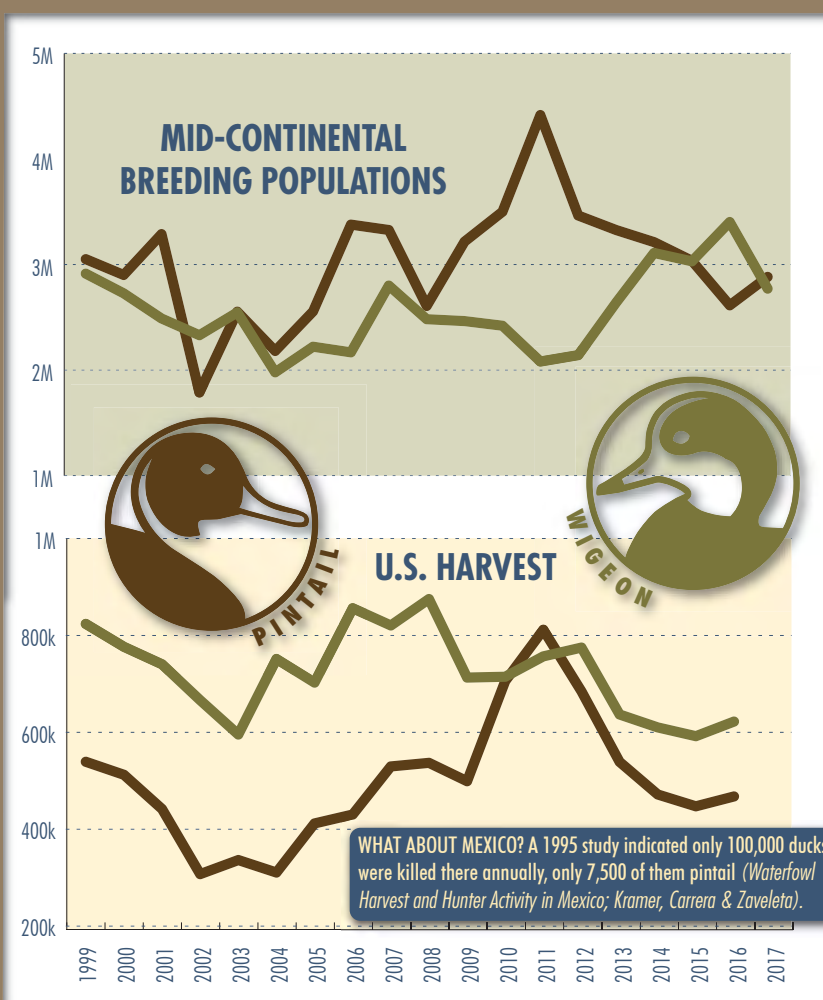
The wigeon and pintail we kill in the U.S. come primarily from the same region — the mid-continental "duck factory" — and their populations have been similarly sized for four decades. Yet wigeon have liberal daily bag limits (7 in California) and pintail have restrictive daily limits (1 in California this year). Why is that?

Both populations crashed in the 1970s in the face of major drought, and while wigeon (and other dabbling ducks) rebounded, pintail did not. Restrictive limits were put in place in response.

A growing body of research suggests that restrictive limits are not helping pintail populations — that their population is determined almost entirely by habitat conditions on their breeding grounds, and that a shift in agricultural practices in Canada is a substantial limiting factor.

CWA is working to educate other states about the value of pintail in California to build support for changing the federal frameworks that determine limits each year to reflect this emerging science. It's a process that will take several years, and there is likely to be resistance.

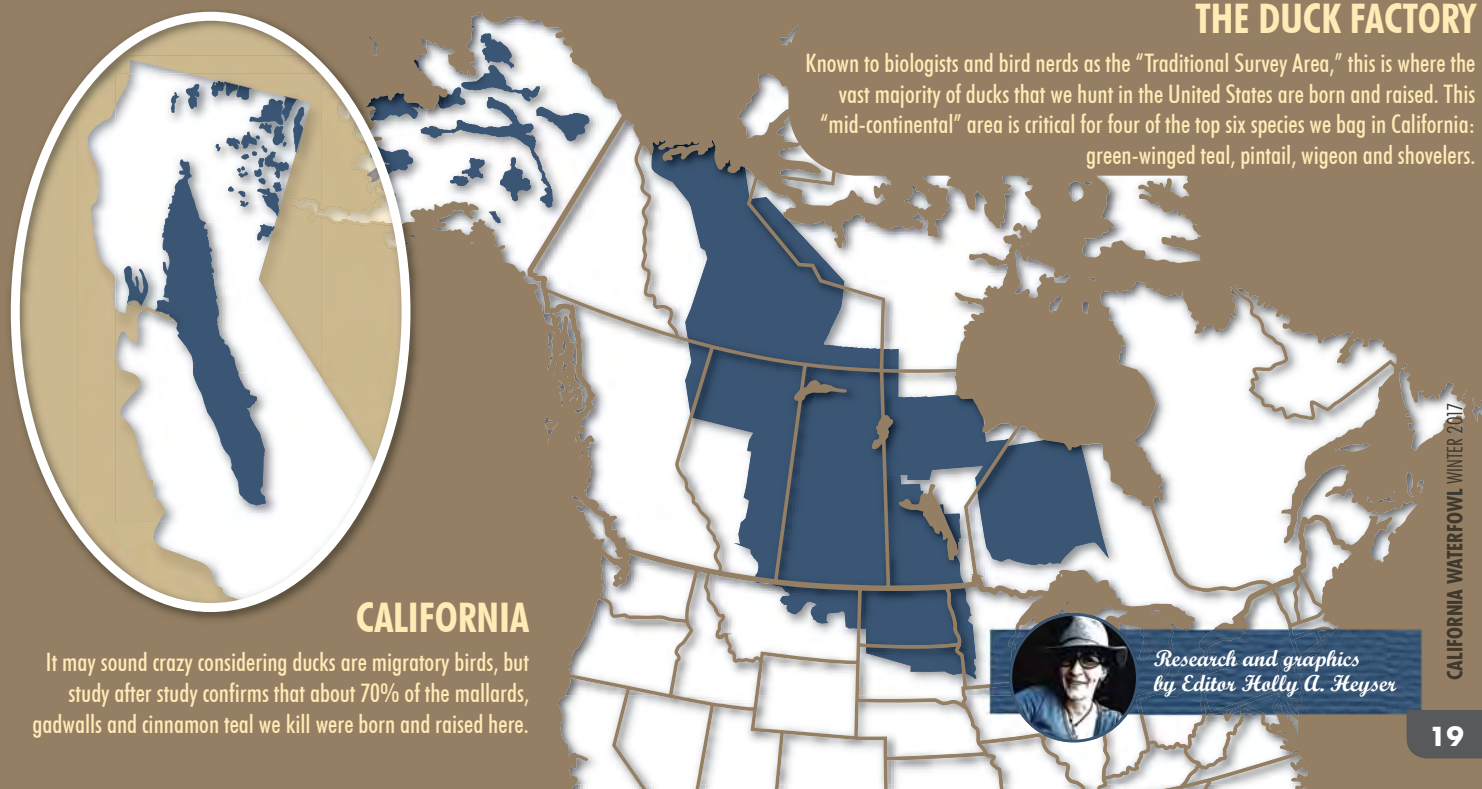
But the clamor is growing: A new study recommends liberalizing pintail limits for 5 to 10 years so researchers can better study whether restrictive limits have any impact on population (*Northern Pintail (Anas acuta) survival, recovery, and harvest rates derived from 55 years of banding in Prairie Canada, 1960–2014*, Bartzen & Dufour).



WHERE CALIFORNIA DUCKS ARE MADE

THE DUCK FACTORY

Known to biologists and bird nerds as the "Traditional Survey Area," this is where the vast majority of ducks that we hunt in the United States are born and raised. This "mid-continental" area is critical for four of the top six species we bag in California: green-winged teal, pintail, wigeon and shovelers.



It may sound crazy considering ducks are migratory birds, but study after study confirms that about 70% of the mallards, gadwalls and cinnamon teal we kill were born and raised here.