Pheasant News and Notes

May 2025

Trivia Question

In the context of automated recording unit (ARU) sampling, I've been trying to find a published measurement of the intensity (in decibels) of a rooster pheasant crow, with no luck yet. However, intensity in domestic roosters (i.e., male chickens) has been measured. Considering a "military jet aircraft take-off from aircraft carrier with afterburner at 50 feet" is around 130 decibels, how loud is the crow of a rooster?

USDA and Legislative News

The Association of Fish and Wildlife Agencies' Agricultural Conservation Committee met virtually this week to share news on evolving USDA-related legislation and policies. Notes from that meeting include:

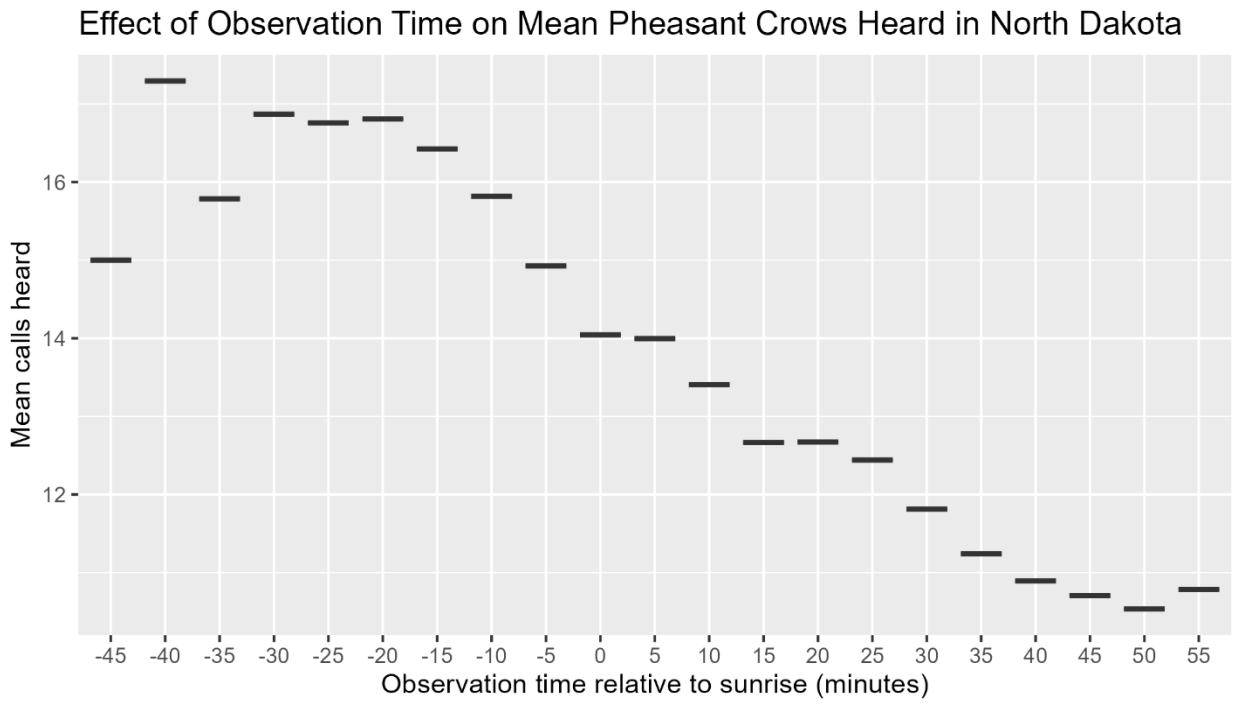
- Republican leadership continues the process of passing a budget reconciliation bill. The first step was completed last month when a budget resolution was passed by both chambers, and committees are now working to pass portions of the larger bill. House Speaker Johnson has said he would like to have the final bill in place by July 4th, which many see as an overly optimistic timeline. The reconciliation bill must be limited to actions on spending, taxation, and debt (no policy changes per se), and only needs a simple majority in both chambers to pass.
- As part of this process, the House Agriculture Committee was initially charged with cutting $230 billion from USDA programs by Republican leadership. A cut of this size could only happen if large changes to food assistance programs (i.e., SNAP) are enacted, which in turn could make it much more difficult to find bipartisan support for a new Farm Bill later this year. It is believed that changes to nutrition and crop insurance funding levels will be included in the reconciliation bill rather than including them in the Farm Bill. The reconciliation markup in the House Ag Committee is scheduled for next week.
- Senators Thune (R-SD) and Klobuchar (D-MN) have introduced the American Prairie Conservation Act, which would enact a nationwide "sodsaver" provision to discourage future grassland conversion to cropland. This will act as a marker bill in advancing the idea when Farm Bill negotiations begin in earnest.
- The administration's "skinny budget" recommendations were released recently. They call for an 18% cut to USDA across the board, with funding for NRCS Conservation Technical Assistance (state/county office and partner staff) cut by $754 million and FSA salaries and expenses cut by $358 million. This would obviously have huge effects on the ability of the agency to deliver services. The good news is that Congress has historically paid little attention to administration recommendations when creating spending bills and will likely do so again. However, some questions remain about the administration's willingness to spend all the funds approved by Congress, though failure to do so would be unprecedented. Given the recent executive orders involving spending, unprecedented things could happen.
- USDA formally announced that 15,000 staff have taken buyouts (36% loss at FSA, 17% loss at NRCS). Losses of late career staff (the ones with the most institutional knowledge and experience) were high, which will no doubt affect the functioning of state USDA/NRCS/FSA

offices and partnership agreements. Correspondence with USDA will likely be harder, so allow for more time on processing grants, etc.

- USDA Secretary Brooke Rollins announced that a department restructuring plan will be unveiled next week, claiming it "won't be as drastic as feared." It has been previously reported that many positions will be moved out of D.C. offices and into regional hubs.
- The legality of "swampbuster" provisions in the Farm Bill that discourage wetland draining is being weighed by the U.S. District Court for the Northern District of Iowa. The defendant is a landowner who wants to crop a designated wetland and still receive other USDA benefits, and claims an unconstitutional regulatory taking. The court's decision is pending, and both parties have said they will appeal if they lose. If "swampbuster" provisions are struck down, so too would be the Farm Bill's "sodsaver" provisions discouraging grassland conversion. Two other similar cases have also been filed.
- USDA's Partnership for Climate Smart Commodities Program has been renamed the Advancing Markets for Producers Initiative. Projects funded under the original program were allowed to continue unaltered if greater than 65% of federal funds go to producers, at least one producer had been enrolled by the end of 2024, and a payment had been made to a producer by the end of 2024. Of the 82 projects with $5 million or more in overall funding, it appears that 19 of them meet these criteria. The others that do not can reapply after altering their projects to fit the new "65%" rule.
- In USDA-adjacent news, the U.S. Fish and Wildlife Service is proposing to rescind their definition of "harm" in Endangered Species Act regulations. It says the existing regulatory definition of "harm," which has long included habitat modification, now runs contrary to the best meaning of the statutory definition of "take." Expect lawsuits to commence if the Service follows through with its proposal.

Notes from Around the Pheasant Range

Counts of crowing roosters kicked off last month in several states that run them. I've spent a good chunk of time recently going through the historic crow count data sets from Kansas and North Dakota to prepare them for analysis by the spatial modelers at Ohio State. Since we are using these data in ways that the states haven't in the past, there are often inconsistencies in the records that need to be cleaned up prior to looking for habitat effects. For example, the time relative to sunrise that a point count was taken can have a big effect on the number of roosters heard, but as long as the route containing the point is started and run at approximately the same time each year, that point-level effect isn't a worry and observation time anomalies can be ignored. They can't be ignored if you are trying to use the counts from individual points independently, though, which is what we are trying to predict with the models.



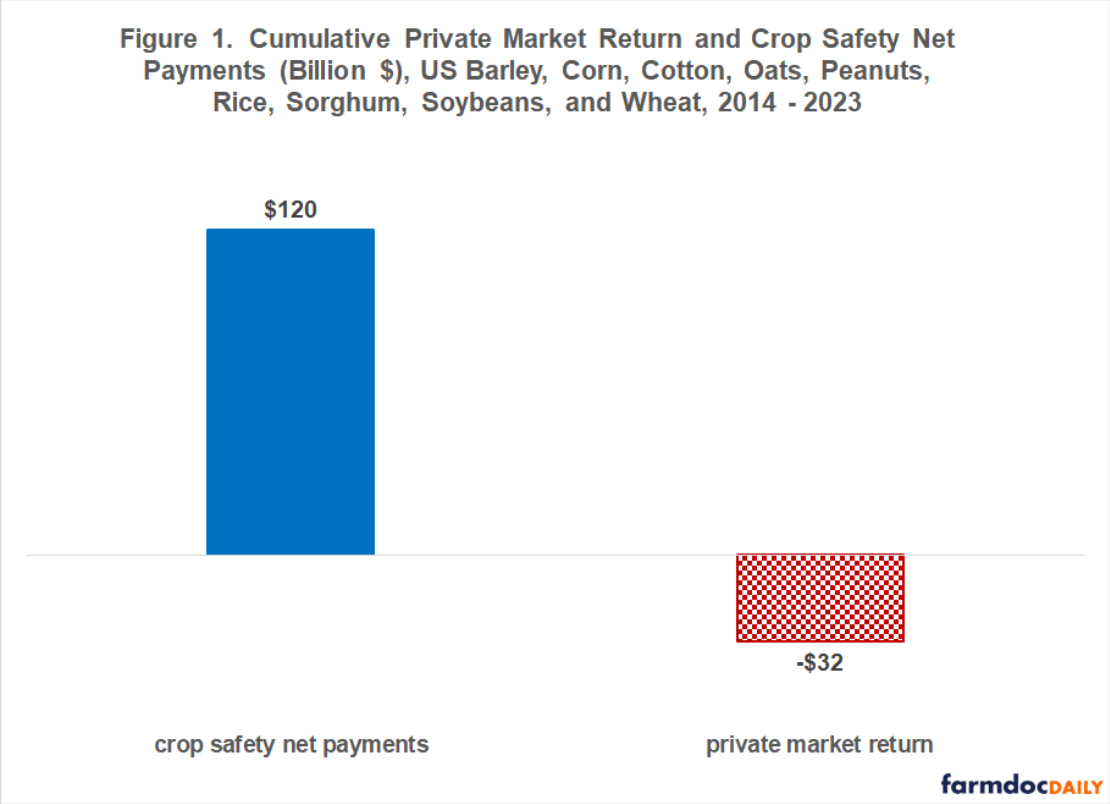
One of the other issues that route-runners and data-analyzers have to deal with is noise interference while listening for pheasant crows. On a calm, quiet morning in a flat landscape, you can hear a rooster a long way off, but it gets more difficult if there is some natural or man-made noise going on at the same time. North Dakota's data contains thousands of stop-specific comments about noise, so I reviewed them to help flag potential data quality issues.

After that experience, I'm guessing you can learn a lot about the landscape by what's making bothersome levels of noise out there from a counter's perspective. Not only were North Dakota's counters plagued by the usual planes, trains, and automobiles, but also noise from boats, school buses, tractors, sprayers, dairy machinery, oil rigs, natural gas flares, wind turbines, pipelines, power lines, propane guns, gravel crushers, and mines (the noise from which was placed by one observer into "slight", "severe", "mega", and "2x mega" categories). Cattle were a frequent problem with all their "mooing", "bellowing", "bellering", "bawling", "grunting", "talking", "lowing", and "ripping grass". Canada geese were the most common avian annoyances ("geese bellering!", "too many geese!", and "Canada geese wouldn't shut up!!"), but ducks, turkeys, sharp-tailed grouse, gulls, blackbirds, bluebirds, catbirds, kingbirds, "dickey birds", meadowlarks, bobolinks, swallows, upland sandpipers, marbled godwits, killdeer, mourning doves, woodpeckers, hawks, and coots all garnered specific mentions. (Interestingly, because of the abundant bird and frog life, wetlands were often described as bad places to try to count pheasants. Is this part of the reason wetlands aren't strongly associated with pheasant abundance according to some call-count-based models?) Taken together with the healthy number of roosters often reported and the fact that most stops had no mention of noise, all those comments probably paint a fairly complete picture of what you could experience when spending a random spring morning in North Dakota's pheasant country. If you can put a little distance between yourself and heavy industry, it sounds pretty inviting!

Speaking of crow counts, the National Wild Pheasant Technical Committee started making initial plans to conduct some in-person and acoustic recording unit-assisted counts to help validate the abundance

prediction models being developed by Ohio State University in partnership with PF and USDA-FSA. We're just getting started with logistics, but it appears that a good number of states are willing to participate next spring. The models are being trained on historic data from Kansas, North Dakota, Ohio, and Wisconsin, so the new observations should provide a good measuring stick for their performance in other places across the pheasant range.

Todd Bogenschutz (Technical Committee, Iowa) passed along a report from the University of Illinois looking at the role crop safety net programs play in farm profitability. Based on their results, federal subsidies were the only things that kept cropland agricultural afloat during 2014-2023. The authors argue that subsidies have distorted markets and allowed input costs to rise despite this underlying unprofitability. Interest in conservation programs usually rises when farm profitability falls, but the willingness to keep increasing subsidy levels weakens this connection.



Jessica McGuire of Quail Forever sent an interesting article entitled, "Extinction of experience among ecologists." Its short abstract says, "Fieldwork-based research and education in ecology are under multiple threats and are progressively declining. We call for greater attention to this ongoing loss of direct field experience within the ecology community, as it could have widespread consequences for science and education, ultimately hindering efforts to address the ongoing biodiversity crisis." Amen! The authors of another recent paper point out that not only are we taking the element of human observation out of the field, we are heading towards taking it out of the data review process for remotely-captured data, as well. Both seem to be worrisome trends because they may lead to spurious results and conclusions, and to biologists that may be ill-trained to spot those problems.

One counterargument is that technology can and should continue to reduce the labor involved in conservation science and delivery, and we are simultaneously being implored to find more efficient uses of our limited resources. If technology can take over some of the tasks of collecting, reviewing, and analyzing field data, and then use large language models to write up popular and technical descriptions of the results, what essential skills do biologists bring that add value to the process? What do we do when those essential skills are often honed while doing the labor that is replaceable by technology? It's a trade-off problem with no easy answers, which is par for the course in our field.

Pheasant-relevant Media

California's Yolo Bypass Wildlife Area sees record wild pheasant harvest at 687 roosters
House ag chair plans to boost farmer safety net in budget reconciliation bill
Study finds pheasant link to Lyme disease germ
We're releasing millions of birds. The ticks are thriving.
Collapsing bird numbers in North America prompt fears of ecological crisis – research
MeatEater podcast: The future of the Farm Bill and private lands conservation in America
Nebraska farmer buys $1.8-million hunting retreat to convert to crops
Most Americans want more public land, not less, poll shows
At least $134 million in federal money for conservation across South Dakota still in limbo
The Central Grasslands: Backbone of North America
Proposed ESA rule cuts habitat harm definition

Recent Literature

Michels, E., et al. 2025. The release of non-native gamebirds is associated with amplified zoonotic disease risk. Ecology Letters 28:e70115.

LeBeau, C., et al. 2025. Patterns in lek persistence and attendance by lesser prairie-chicken (*Tympanuchus pallidicinctus*) near a wind energy facility in southern Kansas. Wildlife Biology (early online version).

Kubecka, B. W., et al. 2025. Tree cover limits occupancy of a declining game bird. Wildlife Biology (early online version).

Allred, C. R., et al. 2025. Satellite imagery can predict bird species occupancy and inform multispecies management in pine savannas. Ornithological Applications (early online version).

Costanzo, B. E., et al. 2025. ANCHOR: An opportunity to change landscape connectivity networks and conservation delivery at-scale in the U.S. Land 14:385.

Leipold, E. A., et al. 2025. Maximizing the detection probabilities of dusky grouse for population monitoring. Wildlife Biology (early online version).

Clarfeld, L. A., et al. 2025. Two-stage models improve machine learning classifiers in wildlife research: A case study in identifying false positive detections of Ruffed Grouse. Ecological Informatics (early online version).

Johnston, A., et al. 2025. North American bird declines are greatest where species are most abundant. Science 388(6746):532-537.

Grooms, B., et al. 2025. Using relative deprivation theory to investigate wildlife recreationists' perceived differences in state wildlife agency services. Journal of Wildlife Management (early online version).

Zulauf, C., G. Schnitkey, N. Paulson and J. Coppess. US crop agriculture's government payment trap. farmdoc daily (15):74, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, April 21, 2025.

Soga, M., and K. J. Gaston. 2024. Extinction of experience among ecologists. Trends in Ecology and Evolution 40:212-215.

Barnas, A. F., and J. T. Fisher. 2025. Will using artificial intelligence to review camera trap images reduce human connection to wildlife research? Journal of Wildlife Management (early online version).

Hunter, A. H., et al. 2025. Human dimensions research and applications within WAFWA: Best practices and practical recommendations. Western Association of Fish and Wildlife Agencies.

Trivia Answer

When measured just in front of a rooster's beak, a crow can be up to 143 decibels. Those levels drop to around 102 decibels at 0.5 m from the bird. According to the authors of the linked study, "When the beak is opened, … a morphological difference between the sexes … causes the outer ear canal to close in roosters but not in hens." This sex-specific trait apparently protects a rooster's hearing from potential damage caused by its own crows.

Trivia extra credit: For what it's worth, the loudest bird known to science seems to be the white bellbird, with a song estimated at 125 dB at 1 m from the source. (The link includes a video – you should check it out.) As a rule of thumb, when the distance from the source to the observer doubles, sound intensity declines by around 6 decibels. So, a rooster's crow should measure about 96 decibels at 1 m from the bird. Because decibels are on a base-10 log scale and perceived "loudness" is on a base-2 log scale (more or less), the 23 dB difference between the songs of a white bellbird and a rooster equates to about a 200-fold difference in intensity, which is perceived as a nearly five-fold difference in loudness (i.e., a difference of 10 dB is 10 times more intense and twice as loud, a difference of 20 dB is 100 times more intense and four times as loud, etc.) The rule-of-thumb math on loudness doesn't quite work because the two bird sounds are at different frequencies, but we should be in the right ballpark. Be thankful that your chicken-raising neighbors aren't into bellbirds.

This update is brought to you by the National Wild Pheasant Conservation Plan and Partnerships. Our mission is to foster science-based, socially-supported policies and programs that enhance wild pheasant populations, provide recreational opportunities to pheasant hunters, and support the economics and social values of communities. You can find us on the web at https://nationalpheasantplan.org, including all back issues of Pheasant News and Notes.