

## WSCB Guest Speaker: Kelly Maguire - Wi DNR State Game Farm

**Speaker:** Kelly Maguire from Wisconsin DNR State Game Farm

**Position:** Natural Resources Operations Supervisor

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### Kelly Maguire's Presentation:

- The Wisconsin state game farm started as the Wisconsin fur and game farm in Fish Creek, Door County, Wisconsin
  - In the 1930s the operation was moved to Poynette
  - Later changed title to Wisconsin Experimental Fur and Game Farm
  - Purpose - researching how to best propagate game birds and animals for their fur (raccoons and foxes)
    - Lots of genetics work done to create in-demand color phases
      - Later to release phases into wild to hybridize and create desirable wild hybrids
- 1940-1950s started a roadside zoo
  - Largely had injured, non-releasable animals
  - Displayed to public for entertainment
- 1950
  - First section of original farm discontinued
  - Remaining parts split into the Mackenzie education center and the game farm
    - Mackenzie education center created to facilitate outdoor public education
  - has always worked with ring-necked pheasants
    - Originally native to Asia
    - Brought to North America by someone in the late 1800s with differential success throughout the US
    - Introduced to Wisconsin in late 1880s - did reasonably well
  - The public likes the ring-necked pheasants
- Game farm produced ring-neck pheasant originally for introduction into various Wisconsin counties
  - Hoping for self-sustaining wild populations
  - Varied success
  - Few self-sustaining populations
  - Lots of time spent trying different genetics and hybrids
- 1980: called it - Ring-necked pheasants in Wisconsin would be a "Put and Take" Situation
  - Pheasants are going to have to be released annually from the farm for hunting, as they will not sustain themselves naturally
  - Public has demand for it - hunting is a popular sport
- Currently the flock is closed - there are no new birds being added to the flock
  - 83,000 birds at height
  - No health issues, enough genetic diversity within the population to avoid problems

- Two breeder flocks
  - One indoor flock
  - One outdoor flock
  - Safeguards against possible disasters striking, would likely only impact one flock
- 7000 eggs laid each day during laying season
  - Very intensive
  - Photoperiod is manipulated for indoor birds to induce laying 2.5 weeks earlier than would otherwise occur
    - This extends the egg laying period, and once the indoor laying starts to lull the outdoor laying ramps up
  - Eggs laid mid march - mid june
  - Eggs gathered 4 times a day during laying season
- Hatchery is new! New building erected in 2018
  - Biosecurity and decreased disease risk with new technology and construction
  - Eggs get cleaned and disinfected
- Once eggs are laid
  - 1 - brought to the cooler room
    - 52 degrees fahrenheit
      - Keeps eggs dormant and non-developed
    - Eggs are inspected for defects and culled as necessary
  - 2 - brought to storage room
    - Eggs are allowed to warm to room temperature gradually
  - 3 - brought to incubator room
    - 99.5 degrees fahrenheit, 53% humidity
    - Eggs are turned by machines every 2 hours to the embryo doesn't adhere to the side of the egg
    - Remain in incubators for 21 days, then take roughly 2 days to hatch
    - Embryo breaks into air cell within the egg and starts breathing and peeping
      - Eventually the CO2 buildup in the sac causes a hatching muscle in the bird to start twitching, causing the baby to start hatching out of egg
  - 4 - brought to hatchery
    - Chicks get sexed and counted
      - Roosters are identifiable because they have a black stripe in front of the eye, which is where their waddle will emerge
    - Hen chicks are put up to sale to the public - game farm mostly keeps males
- Brooder barn
  - Where chicks are raised
  - Two different sections
    - A room - large room where birds are checked several times a day for health and wellness

- Big red waterers, because chicks are naturally attracted to the color red
    - Metal disks full of food on the floor
  - B room - larger room for larger chicks
    - Moved here after 2.5 weeks
    - Checked twice daily
  - 6500 birds/hatch, about 13 hatches/year
- Once chicks are ready to move outside, they spend three days acclimating to outdoor conditions
  - Mist chicks to induce preening - act of preening helps waterproof feathers
- After 6 weeks the birds go into the outdoor range field
  - A cover crop is planted in each outdoor pen - to provide shade and enrichment
    - Usually corn
  - Birds able to thermoregulate on their own
- Start stocking the older birds for hunting first
  - Start shipping out Mid-October
  - Weaned off feeding behavior at farm - start to forage more on the cover crops (corn)
  - Volunteers help herd the birds into catch pens
    - Dangerous job - these three pound birds can concussion you
  - Birds loaded into transport trailers
    - Taken to various wildlife areas throughout the state and passed to employees for them to stock
- Stock mid october-mid December
  - NO stocking done when raining
    - When being transported, the pheasant's wet tails will knot together
  - NO stocking on gun deer week
- What benefits does ring-necked pheasant stocking and hunting offer conservation?
  - Ring-necked pheasants are EXOTIC species after all
  - Pheasants not released where native prairie chickens or quails already are to avoid competition
  - Talking about pulling back release sites in areas where sharp-tail grouse are making a comeback
  - In order to hunt ring-necked pheasants one needs a license (costs \$18) as well as a pheasant stamp (costs \$10)
    - 60% of revenue (~690,000) goes back to the game farm
    - 40% of revenue goes to habitat restoration/establishment within the state
      - Largely focused on grasslands in the state
      - Working on converting agricultural land to grassland, and removing invasives from current grasslands
      - Oftentimes this portion gets matched by other companies that are invested in conservation (e.g. Pheasants Forever)
  - Lots of species use the grasslands that the revenue helps restore/establish

- **Primary job of the game center:** To produce healthy birds to stock in wildlife areas for hunting

Question & Answer:

- Hunting as a hobby is decreasing across the country - have you seen this reflected in pheasant hunting?
  - Not particularly, there was even an uptick in hunting (and state park visits) through COVID. No significant decrease
  - Helping and hosting Learn-to-hunt events to show people it is a good way to get outside into wildlife
    - Looking to have adults and parents pass on the sport of hunting to their kids
- Would you ever consider stocking any other types of birds for hunting?
  - No. Bringing nonnative species into the state is not ideal.
    - At the time of ring-necked pheasants being introduced into Wisconsin grouse and prairie chickens were doing well. Now, not so much
    - Don't want to introduce anything new that might outcompete native species
  - We could potentially shift to raising native Wisconsin species but it would be a HUGE endeavor to do so because they have very different rearing protocols
    - Probably not enough funds to do so
- Where are the self-sustaining ring-necked pheasants in the state?
  - Mostly in Northwest Wisconsin.
  - A big population in Polk County.
  - Pheasants utilize upland, wetland, and agricultural land. They require perfect proportion of all three (within a mile of each other) because they don't like flying or moving far
- Does releasing the ring-necked pheasants have any significant ecological impacts?
  - Pushing out natives is always a concern, but they are not around long enough to have a massive impact
  - The self-sustaining population in northwest Wisconsin are being monitored, as the sharp-tailed grouse are making a comeback in the area
    - Possible removal of populations up there, as they are an invasive species
- Have you made any changes to the rearing and stocking process due to Highly Pathogenic Avian Influenza (HPAI)?
  - Facility was shut down for a bit - only allowing essential personnel
    - Usually there were foresters, wildlife biologists, and fishery personnel working there
    - Used to be open to the public
  - Only DNR staff can go in
  - Limited access to the site
    - During outbreaks only vehicles already onsite allowed, or offsite vehicles have to be disinfected before entering

- Different footwear covers and footwear for different areas of the farm
- If avian influenza gets into the population the farm would have to euthanize the entire flock
  - This happened to a game farm in southwest wisconsin with 230,000 pheasants and 80,000 bobwhite quail
- Luckily, the virus can be easily disinfected
- Virus can be found in migrating birds, can sustain itself through freezing winter
- What happens to the pheasants you euthanize, can they be used in any way?
  - If they die due to disease, it depends on the disease
    - HPAI could be composted - as the heat degrades the virus
- How does selling the hens work?
  - People buy the hens for 0.15\$ a chick, a price that has NEVER been increased
  - People raise them like chickens - however they are a lot harder to raise than chickens
  - No permits required to raise them unlike other game birds
- Where does funding come from?
  - The stamp sales covers 50% of the budget
    - But the price of feed is going up, this will soon barely cover the feed
  - Rest is covered through the sales of other hunting licenses
  - All funding for the state game farm comes ONLY from the sale of hunting stuff
- How did you get into the state game farm?
  - Got a captive wildlife management degree from UW-Stevens Point
  - Did incubation work at the International Crane Foundation for 20 years
  - Then needed a change, and a supervisor position opened up
    - Good balance of 60% supervising, 40% hands-on work with birds
  - Most of state game farm staff went to UW-Stevens Point
  - Did graduate work at UW-madison in wildlife ecology of cranes
  - Really unique niche - captive and also outside wildlife management
- What do you do with infertile eggs?
  - Not huge issue, usually 91% of eggs are fertile
  - Culled and infertile eggs are not sold for human consumption
    - Disinfecting process is not sterile enough for people to eat them
  - Eggs get donated to Mackenzie center or Ochsner Park Zoo in Baraboo or other zoos as supplemental animal feed or enrichment
- What are the differences between working at the International Crane Foundation (ICF) vs the DNR?
  - Hard to compare
  - At the ICF started as a keeper, moved up to assistant curator. Never really did funding work
  - Not enough experience at either to say for sure
  - Pay rate is better at the government agency
    - But with current position have to worry more about the funding
- Mackenzie center gets euthanized chicks sometimes - how does that work?

- Hens that go unsold are euthanized via CO2 and donated to wildlife rehabilitators as food
  - Wildlife rehabbers rarely have the funds to purchase all the food they need, often rely on donations
  - Try to donate hens to places that REALLY need them
- Why are feed prices going up?
  - Cost of crops are going up in addition to supply chain issues
- What does the International Crane Foundation do?
  - They work with endangered species of crane (11)
    - 13 crane species worldwide
  - Used to be a breeding program for endangered species. Now they do breeding, education, exhibit, and habitat work/maintenance
    - WORLDWIDE
  - You can raise cranes all you want, but you need them to have a habitat to go into - so the habitat maintenance is a big part of their organization
  - Complete research projects studying sandhill cranes within wisconsin
    - Sandhill cranes used to be very rare, but with vigorous public education they now have a pretty big population
- Do you have any resources to share for internships or careers?
  - Check out the Aldo Leopold Foundation - they do habitat and ecosystem maintenance
  - There are internships at ICF offered
  - Seasonal employment offered at the State Game Farm - feel free to email [kelly.maguire@wisconsin.gov](mailto:kelly.maguire@wisconsin.gov) with any questions
  - Lots of government jobs posted on : <https://wisc.jobs/>