

Most Common Game Animals in the U.S and Information on Intakes, Habitation, Hunt Frequency, and Human Consumption

**A research report supporting the 2016 EPA Document on Biota Modeling
for Superfund Risk Assessment**

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Abstract

This report was created as a research project to compile information on the most common game animals in the U.S as of 2020, including big game, small game, migratory/non-migratory game birds, and game fish. This document contains all information found on the animals' respective migration patterns and habitats, along with fodder, water, and soil intakes. We also take a look at human consumption of these animals and the amount of time people spend hunting and fishing them per year. This report is intended to help the EPA improve how it assesses risks for recreational hunters at Superfund sites and was written as a supplement to the 2016 Document, 'Biota Modeling in EPA's Preliminary Remediation Goal and Dose Compliance Concentration Calculators for Use in EPA Superfund Risk Assessment: Explanation of Intake Rate Derivation, Transfer Factor Compilation, and Mass Loading Factor Sources,' which covers residents and subsistence farmer intake rates of home-grown produce and farm animals and acts as a supporting document for the EPA's models for risk and dose assessment at radioactively contaminated Superfund sites.

Common Game Animals

According to the data available, the animals listed below are the most common game animals hunted and fished in the U.S. Information on these animals include all data found on respective intakes (fodder, water, and soil), migratory patterns and habitats, frequency of hunting trips, and human consumption.

A Note: All of the animals on this list that are foragers typically ingest a small amount of soil due to the nature of the fodder, which is calculated as 10% of total kg eaten per day.

Big Game

According to the U.S Fish and Wildlife 2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, hunters spend 14 days on average hunting big game in the US¹ (p 26). Cervida family animals get water from lakes, streams, and other sources of water like the vegetation they feed on and typically live in forests and open plains. Bear species Hibernate during the winter.

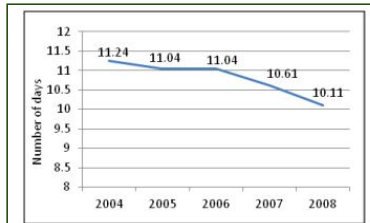


Fig 1: Trends in hunters' average number of days spent hunting Deer, Elk, and Bear between 2004 and 2008³ (p 3)

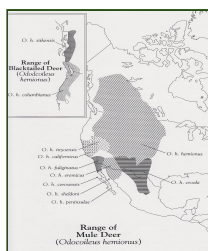
Whitetail Deer:

These are one of the most popular game animals to hunt because of their wide range and high yield, weighing 68-136 kg for Males and 41-91 kg for Females on average². Deer are foraging herbivores and feed on a wide variety of foods such as herbaceous plants, fruits, trees, grasses, and crops like corn and soy. They can drink 1-6 L of water a day⁵ and typically get minerals from soil as ground feeders.



Fig 2: White-Tail Deer Range²

Mule Deer



Mule Deer eat grasses, shrubs, and tree leaves. Male Mule Deer can weigh on average 113-125 kg, while Female Deer can weigh 73-82 kg⁵. These Deer can eat about 22 g of dry plant matter per kg of Body Mass⁶ and inhabit forests, shrublands, and mountains.

Fig 3: Mule Deer Range⁶

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- ¹ U.S. Department of the Interior, U.S. Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2016 *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*.
<https://www.census.gov/content/dam/Census/library/publications/2018/demo/hw16-nat.pdf>
- ² Nature Works, New Hampshire PBS. 2020. *White-tailed Deer (Odocoileus virginianus)*, New Hampshire
<https://nhpbs.org/natureworks/whitetaileddeer.htm>
- ³ Shrestha, S. K, Burns, R. C. 2010. *Big Game Hunting Practices, Meanings, Motivations, and Constraints: A Survey of Oregon Big Game Hunters*. Proceedings of the 2010
<https://www.nrs.fs.fed.us/pubs/gtr/gtr-p-94papers/01Shrestha-p94.pdf>
- ⁴ Wilson, Carrie. 2008. *Outdoors Q&A: How Do Deer Quench Their Thirst?*
https://www.noozhawk.com/article/091808_outdoors_qa_how_do_deer_quench_their_thirst
- ⁵ U.S Fish & Wildlife Service, Department of the Interior. 2013. *Mule Deer (Odocoileus hemionus)*
https://www.fws.gov/refuge/National_Bison_Range/Wildlife_and_Habitat/mule_deer.html
- ⁶ Bouley, N, Meyer, D, University of Wisconsin Stevens Point College of Natural Resources. 2020. *Mule Deer*, Wisconsin
<https://www.uwsp.edu/wildlife/Inguulates/Pages/Mule%20Deer/Mule-Deer-Home.aspx>

Elk:

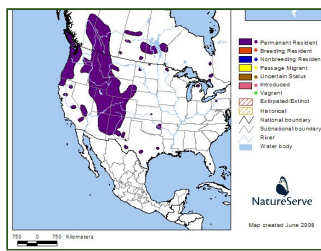


Fig 4: Elk Distribution⁷

Elk are popular big game animals and are also members of the Deer family, or Cervida, although they can weigh an estimated 204 to 500 kg⁷. They are opportunistic herbivores and eat grasses, shrubs and other vegetation. Elk also get water from typical sources including snow in the winter. They tend to migrate to lower elevations during the winter, while typically feeding in lower elevations during summer. Their habitat includes mountainous regions.

Black Bear:

Black Bears are opportune omnivores that consume shrubs, fruits, grasses, small animals including insects, carcasses, and human trash, ingesting from about 4,000- 6,000 kcal per day¹⁰. The Males can weigh 68-204 kg and the Females weigh 50-113 kg⁹. They live in forests near streams and rocky areas.

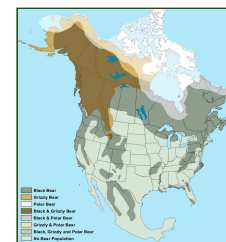


Fig 5: Bear Distribution Map⁸

Brown Bear:

Brown bears are also omnivorous, and eat shrubs, fruits, fish, and other small animals, weighing up to 771 kg for Males and up to 363 kg for Females¹². They also dwell in forested areas, fields, and prairies near rivers.

Pronghorn Antelope:



Pronghorns tend to eat shrubs, grasses, and desert plants and can weigh 41 to 54 kg¹³. They dwell in desert regions with shrubland and grassy plains and drink an average of about 3.6 L per day (p 19)¹⁴.

Fig 6: Pronghorn Antelope Range¹³

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- ⁷ Tennessee Wildlife Resources Agency, Tennessee's Watchable Wildlife. 2020. *Elk (Red Deer) Extirpated; Re-Introduced; Hunted*, TN
<http://www.tnwatchablewildlife.org/details2.cfm?sort=acountnumber&uid=11081615340793393&commonname=Red%20Deer%20%28Elk%29%20%28Extirpated%20Re-Introduced%29%20%28Hunted%29&DISPLAYHABITAT=&typename=Mammal&Taxonomicgroup=Mammal%20%20Large>
- ⁸ Geology.com. 2020. *Where Do Bears Live in North America?*
<https://geology.com/stories/13/bear-areas/>
- ⁹ Connecticut Department of Energy and Environmental Protection. 2020. *Black Bear (Ursus americanus)*, CT
<https://portal.ct.gov/DEEP/Wildlife/Fact-Sheets/Black-Bear>
- ¹⁰ Holland, Mary, The National Audubon Society. 2010. *Black Bear Diet*
<http://www.audubonguides.com/article.htm?id=124>
- ¹¹ National Park Service. 2020. *Brown Bears*, U.S. Department of the Interior
<https://www.nps.gov/subjects/bears/brown-bears.htm>
- ¹² National Wildlife Federation. 2020. *Grizzly Bear*, Merrifield, VA
<https://www.nwf.org/Educational-Resources/Wildlife-Guide/Mammals/Grizzly-Bear>
- ¹³ Nature Works, New Hampshire PBS. 2020. *Pronghorn (Antilocapra americana)*, New Hampshire
<http://www.nhptv.org/natureworks/pronghorn.htm>
- ¹⁴ Thluczek, Melanie. 2012. *Diet, Nutrients, and Free Water Requirements of Pronghorn Antelope on Perry Mesa, Arizona*, Arizona State University
https://repository.asu.edu/attachments/94114/content/tmp/package-m7Od_iThluczek_asu_0010N_12176.pdf

Caribou:



U.S.¹⁷

in Alaska¹⁵

Fig 7: Caribou Range

Caribou are opportunistic herbivores that eat shrubs, tree leaves, fungi, lichens, and grasses. Males can weigh from about 160-181 kg¹⁶ and Females weigh 80-102 kg and migrate as a herd during winter, preferring forests, mountains, and tundras. They typically eat 34- 61g of dry matter per day per kg of Body Mass^{0 7 5} during Winter (p 2)¹⁷.

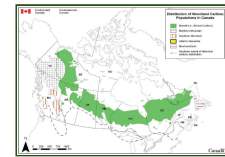


Fig 8: Caribou Range

Mainland

Wild Pig (AKA. Wild Hog, Boar, or Feral Swine):

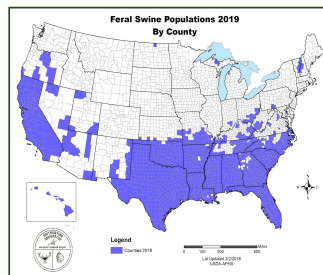


Fig 11: Wild Pig Range Map¹⁸

Wild pigs are omnivores that will eat anything, including plants, small mammals, eggs, and invertebrates. They weigh an average of 91 kg¹⁹ and normally eat the equivalent of 3-5% of their body mass per day (p 105)²¹, while drinking 11-27 L per day²⁰. Wild pigs are invasive and can live anywhere in the U.S, but prefer warm areas close to water, including forests and agricultural land.

¹⁵ Alaska Department of Fish and Game. 2020. *Caribou (Rangifer tarandus granti)*, State of Alaska http://www.adfg.alaska.gov/index.cfm?adfg=caribou_main

¹⁶ Alberta Wilderness Association. 2020. *Caribou*, Calgary, Alberta <https://albertawilderness.ca/issues/wildlife/caribou/#parentHorizontalTab?>

¹⁷ Storeheier, Pál, et al. 2003. *Food intake of reindeer in winter*. The Journal of Agricultural Science, 141, DOI: 10.1017/S002185960300337X. https://www.researchgate.net/publication/259361013_Food_intake_of_reindeer_in_winter

¹⁸ United States Department of Agriculture: Animal and Plant Health Inspection Service, Whitehouse.gov. 2020. *History of Feral Swine in the Americas* <https://www.aphis.usda.gov/aphis/ourfocus/wildlifeanddamage/operationalactivities/feral-swine/safs-history>

¹⁹ Mississippi State University Extension Department of Wildlife and Fisheries. 2019. *Wild Pig Info*, MS <https://www.wildpiginfo.msstate.edu/behavior-feral-pigs.html>

²⁰ Guthrie, Tom. 2011. *Water needs of pigs*. Michigan State University Extension https://www.canr.msu.edu/news/water_needs_of_pigs

²¹ Mayer, John J, Brisbin, I. Lehr, Jr. 2009. *Wild Pigs Biology, Damage, Control Techniques And Management*, Savannah River National Laboratory, SRNL-RP-2009-00869 <http://wp.nuburn.edu/dearlab/wp-content/uploads/2014/05/25Food-Habits-Chapter-Wild-Pig-Book.pdf>

²² U.S. EPA. *Wildlife Exposure Factors Handbook*. U.S. Environmental Protection Agency, Washington, D.C., EPA/600/R-93/187. <https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?id=2799>

Small Game Mammals

Per the U.S Fish and Wildlife 2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, people spend an average of 11 days hunting Small Game¹ (p 26).

Rabbits and Hares:



Out of the 15 subspecies of these small mammals, the most commonly hunted species of this category are Eastern Cottontails, Snowshoe Rabbits, and Jackrabbits. These animals eat grains, nuts, and grasses and typically ingest about 0.097 ml of water per day (p 2-355)²² while weighing from 0.4 kg to about 2 kg²⁵. They inhabit meadows and shrublands year-round, staying near their main source of food.

Fig 9: Eastern Cottontail Geographic Range²⁴

Squirrels:

There are 5 subspecies of Squirrels, but the most commonly hunted are Grey, Fox, and Red Squirrels. Squirrels have varied diets that include nuts, seeds, fruits, and some grains. They typically weigh about 0.5 kg²⁶. and dwell in forests with oak trees, as nuts are their main food source.

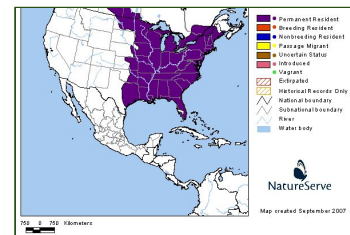


Fig 10: Grey Squirrel Range Map²⁶

²³ Massachusetts Division of Fisheries and Wildlife. 2020. *Learn about squirrels*, Commonwealth of Massachusetts, MA

²⁴ Nielsen, C. & Lanier, H.C. 2019. *Sylvilagus floridanus*. The IUCN Red List of Threatened Species 2019: e.T41299A45191626. <https://www.iucnredlist.org/species/41299/45191626>

²⁵ Animal Corner. 2020. *Wild Rabbits*, UK. <https://animalcorner.org/animals/wild-rabbits/>

²⁶ Tennessee Wildlife Resources Agency, Tennessee's Watchable Wildlife. 2020. *Eastern Gray Squirrel (Hunted)*, TN. <http://www.watchablewildlife.org/details?pfm?sort=commonname&uid=10121315565066299&commonname=Eastern%20Gray%20Squirrel%20%20%28Hunted%29&DISPLAYHABITAT=&typename=Mammal&TaxonomicGroup=Mammal%20-%20Medium>

Non-Migratory Game Birds

These birds are foraging omnivores that dwell in semi-open areas, preferring fields and pastureland with access to forests and dense tree cover. Hunters will also spend an average of 11 days per year hunting these birds¹ (p 26).

Wild Turkey:

Wild Turkey subspecies include Eastern, Merriam, Osceola, Gould's, Ocellated, and Rio Grande Turkeys. They eat insects, fruit, seeds, nuts, grasses, and grain. They tend to swallow sand and grit to help them digest food. Turkey can weigh from 3.6 to 9 kg^{2,9} and consume an average of 0.68 kg of fodder, Distribution²⁷

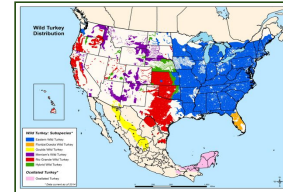
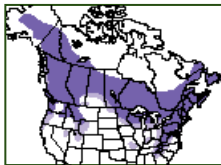


Fig 12: Wild Turkey

1.36 kg of water, and 0.068 kg of soil per day (Table F-1, Biota Modeling). The proposed intake rates in Table A-9 of Biota Modeling by Farmers of Wild Turkey after cooking loss is 23.2 g/day for children and 53.1 g/day for adults³⁰.

Grouse:



Ruffed Grouse are the most popular in a list of subspecies including Red, Sage, Prairie, Ptarmigan, and Forest Grouse. They eat fruits, leaves, insects, and seeds from shrubs and the ground. They can weigh from about 0.5 to 1 kg³¹.

Fig 13: Ruffed Grouse Distribution²⁸

¹ National Wild Turkey Confederation. 2020. *Wild Turkey Habitat*, Edgefield, SC
<https://www.nwtf.org/hunt/wildturkeybasics/habitat>

² BirdWeb. *Ruffed Grouse*, Seattle Audubon Society
https://www.seattleaudubon.org/birdweb/bird/ruffed_grouse

³ Maine Department of Inland Fisheries & Wildlife. 2020. *Wild Turkey*, Augusta, ME
<https://www.maine.gov/ifw/fish-wildlife/wildlife/species-information/birds/wild-turkey.html>

⁹ Manning, K. L. et al. 2016. *Biota Modeling in EPA's Preliminary Remediation Goal and Dose Compliance Concentration Calculators for Use in EPA Superfund Risk Assessment: Explanation of Intake Rate Derivation, Transfer Factor Compilation, and Mass Loading Factor Sources*. Oak Ridge National Laboratory, Oak Ridge, TN, ORNL/TM-2016/328
https://epa-nres.ornl.gov/radionuclides/20161130_Biota_TM_KLM_Final_printable_version.pdf

²⁷ Connecticut Department of Energy and Environmental Protection. 2020. *Ruffed Grouse*,
<https://portal.ct.gov/DEEP/Wildlife/FactSheets/Ruffed-Grouse>

Quail:

The Bobwhite Quail is the most commonly hunted Quail, but subspecies include Gambel's, Mountain, Coturnix, California, and Blue Scale Quail. Their diets typically consist of seeds, leaves, berries, insects, and roots and can weigh about 0.2 kg³³. They ingest different rates of food and water per day depending on the season, but average around 587.7 kcal/kg per day of food and 0.105 g/g per day of water (p 2-127)²².

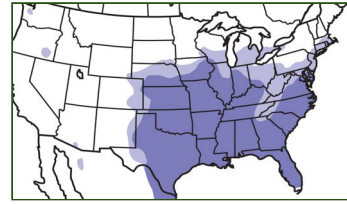
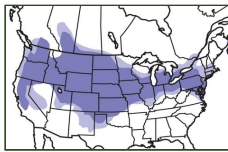


Fig 14: Bobwhite Quail Range Map³²

Ring-Necked Pheasant:



Ring-Necked Pheasants normally feed on grain, seeds, and insects and can weigh an average of 1 kg³⁴.

Fig 15: Ring-Necked Pheasant Distribution Map³⁵

Rock Dove (AKA Pigeon)

Pigeons scavenge for food but their typical diet consists of seeds and grain. They tend to weigh 265-380g³⁶. They dwell in open areas, urban environments, and rocky ledges.



Fig 16: Rock Dove Distribution³⁶

²² Kaufman, K. 2020. *Northern Bobwhite (Colinus virginianus)*, National Audubon Society <https://www.audubon.org/field-guide/bird/northern-bobwhite>

³³ Wooding, J. North Carolina Wildlife Resources Commission. 2020 *Northern Bobwhite, NC* <https://www.ncwildlife.org/Portals/0/Learning/documents/Profiles/bobwhitequail.pdf>

³⁴ Montana Field Guide. Montana Natural Heritage Program and Montana Fish, Wildlife and Parks. *Ring-necked Pheasant (Phasianus colchicus)*, 2020 http://FieldGuide.mt.gov/speciesDetail.aspx?elcCode=ABNL_C07010

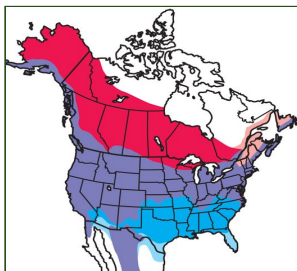
³⁵ Kaufman, K. 2020. *Ring-necked Pheasant (Phasianus colchicus)*, National Audubon Society <https://www.audubon.org/field-guide/bird/ring-necked-pheasant>

³⁶ All About Birds, Cornell Lab of Ornithology. 2019. *Rock Pigeon*, Ithaca, NY https://www.allaboutbirds.org/guide/Rock_Pigeon/overview

Migratory Game Birds

The duck species listed in this report tend to live in freshwater bodies of water in forested or shady areas, including marshes, swamps, ponds, rivers, and lakes. These birds tend to fly South during the Winter and breed in Northern areas. According to the U.S Fish and Wildlife 2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, people spend about 7 days hunting Migratory Game Birds¹ (p 26). The dabbling ducks that feed on the water's surface have the added ability to filter water out of their beaks as they keep food in. Perching ducks have similar feeding habits, however, they come equipped with sharp talons to grip tree branches, where they spend more time than other types of ducks. Ducks intake about 0.24 kg of fodder, 0.48 kg of water, and 0.024 kg of soil per day according to Table F-1 of Biota Modeling. The proposed intake rates in Table A-9 of Biota Modeling by Farmers of Duck after cooking loss is 23.2 g/day for children and 53.1 g/day for adults, being an average used for game birds including Wild Turkey². Other Game Duck species include Canvasback, Goldeneye, Gadwall, and Scaup Ducks.

Mallard:



Mallards are dabbling ducks that forage mostly for seeds, dig for roots, and can also eat small fish and insects. They weigh in at about 1-3 kg^{3,8}.

Fig 17: Mallard Range Map (Purple: All Seasons, Pink: Breeding, Blue: Winter, Grey: Migration)^{3,7}

Wood Duck:

Wood Ducks are perching ducks that forage for plants, seeds, insects, and crustaceans in water. They weigh around 0.5-0.7 kg^{4,0}.

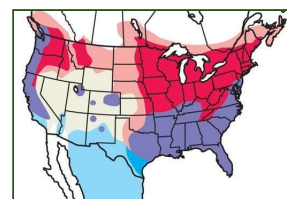


Fig 18: Wood Duck Distribution Map (Purple: All Seasons, Pink: Breeding, Blue: Winter, Grey: Migration)^{3,9}

^{1,7} Kaufman, K. 2020. *Mallard (Anas platyrhynchos)*, National Audubon Society <https://www.audubon.org/field-guide/bird/mallard>.
^{2,8} All About Birds, Cornell Lab of Ornithology. 2019. *Mallard Identification*, Ithaca, NY <https://www.allaboutbirds.org/guide/Mallard/id>.
^{3,9} Kaufman, K. 2020. *Wood Duck (Aix sponsa)*, National Audubon Society <https://www.audubon.org/field-guide/bird/wood-duck>.
^{4,0} Tennessee Wildlife Resources Agency. 2020. *Wood Duck (Aix sponsa)*, TN <https://www.tn.gov/twra/wildlife/birds/wood-duck.html>.

Green-Winged Teal:

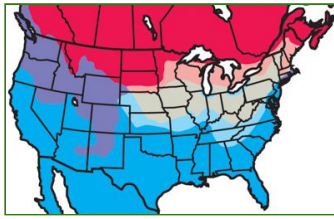


Fig 19: Green-Winged Teal Range Map
(Purple: All Seasons, Pink: Breeding, Blue: Winter, Grey: Migration)⁴¹

Green-Winged teal are dabbling ducks that forage for insects, invertebrates, and seeds in water and mud flats. They tend to weigh from 2-4.5 kg⁴².

Mourning Dove:

Subspecies for Dove include Eurasian Collared and Whitewinged dove, but the most popular are the Rock Dove, or Pigeon, and Mourning Dove. Mourning Doves eat seeds, grasses, and grains and can weigh 96-170 g⁴³. They can eat 12 to 20% of their weight per day⁴³. Doves dwell in fields, semi-open areas, and forest edges but can live in many places.

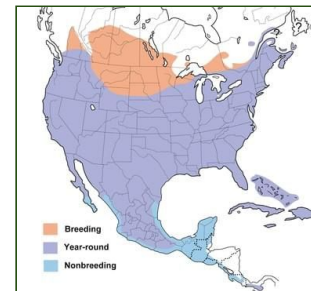
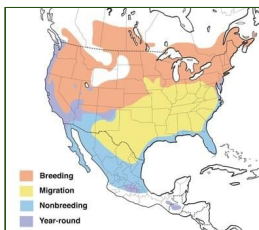


Fig 20: Mourning Dove Distribution⁴³

Rails:



Rail subspecies include Clappers, Kings, Soras, and Virginia Rails. They eat invertebrates and insects and can weigh from 65-95 g⁴⁴. Rails live in wetlands and marshes.

Fig 21: Virginia Rail Range Map⁴⁴

Snipes:

Common and Wilson's Snipes consume insects and invertebrates and can weigh 79-146 g⁴⁵. They live in marshes and wetlands.

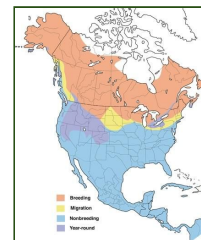


Fig 22: Wilson's Snipe
Distribution⁴⁵

⁴¹ Kaufman, K. 2020. *Green-winged Teal (Anas crecca)*, National Audubon Society
<https://www.audubon.org/field-guide/bird/green-winged-teal>

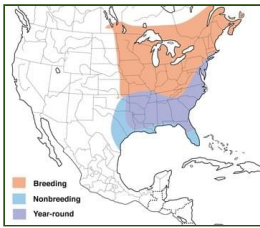
⁴² Johnson, K., C. Carboneras, D. A. Christie, and G. M. Kirwan (2020). Green-winged Teal (*Anas crecca*), version 1.0. In *Birds of the World* (S. M. Billerman, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA.
<https://birdsna.org/Species-Account/bna/species/gnwtea/introduction/>

⁴³ All About Birds, Cornell Lab of Ornithology. 2019. *Mourning Dove*, Ithaca, NY
https://www.allaboutbirds.org/guide/Mourning_Dove/id

⁴⁴ All About Birds, Cornell Lab of Ornithology. 2019. *Virginia Rail*, Ithaca, NY
https://www.allaboutbirds.org/guide/Virginia_Rail/overview

⁴⁵ All About Birds, Cornell Lab of Ornithology. 2019. *Wilson's Snipe*, Ithaca, NY
https://www.allaboutbirds.org/guide/Wilsons_Snipe/overview#

Woodcock:



Woodcocks ingest insects and weigh 116-279 g⁴⁶. They dwell in forests and overgrown fields.

Fig 23: American Woodcock Range Map⁴⁶

Goose:

The most popular species is the Canada Goose, but subspecies include Snow, Ross's, Greater White-Fronted, and Emperor Goose. They are considered dabblers when they feed in water and eat grasses, seeds, berries, and grain and can weigh 3000-9000 g⁴⁷. They dwell in grasslands, fields, yards and marshes, and near bodies of water.

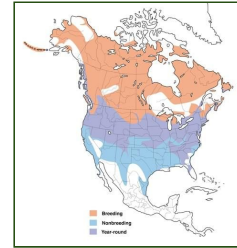


Fig 24: Goose Range

Map⁴⁷

Game Fish

These fish spend a large part or all of their life in freshwater lakes, rivers, and streams and may migrate to larger bodies of water. They are all omnivores and feed differently depending on availability and variety of fodder. These fish have been introduced to bodies of water throughout the US. According to Table A-9 (Default Proposed Intake Rates) of Biota Modeling, the default proposed intake rates of fish in humans is as follows; 57.4 g/day for a Farmer Child raw, 831.8 g/day for a Farmer Adult raw, 35.2 g/day for a Farmer Child after cooking loss, and 509.9 g/day for a Farmer Adult after cooking loss³⁰. According to the U.S Fish and Wildlife 2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, people spend about 13 days fishing per year¹(p 13).

⁴⁶ All About Birds, Cornell Lab of Ornithology. 2019. *American Woodcock*, Ithaca, NY https://www.allaboutbirds.org/guide/American_Woodcock/overview

⁴⁷ All About Birds, Cornell Lab of Ornithology. 2019. *Canada Goose*, Ithaca, NY https://www.allaboutbirds.org/guide/Canada_Goose/id

Freshwater Fish

Freshwater Fish are the game fish that are most commonly eaten by fishermen. Other Freshwater Fish include Pike, Walleye, Sturgeon, Musky, and Paddlefish

Salmon:

The most commonly eaten subspecies of Salmon include Atlantic, Pacific, Sockeye, Chinook, Coho, Pink, and King Salmon. Salmon ingest invertebrates, small fish, and

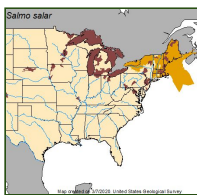


Fig 25: Atlantic Salmon Range⁵¹
Range⁵²

plankton and can range from 1-7 kg⁵⁰. Salmon are anadromous, which means they are born in freshwater, live in the saltwater for a big portion of their lives, then return to freshwater to spawn.



Fig 26: Pacific Salmon

Bass:

Largemouth Bass are the most common type of Bass, but smallmouth, spotted, striped, white, etc are included as species of Bass. Largemouth eat small fish, insects, and macroinvertebrates and weigh on average 0.2-2 kg⁴⁸. Bass naturally live in warm, slow-moving water.

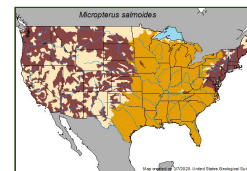


Fig 27: Largemouth Bass
Distribution⁴⁹

Channel Catfish:



Fig 28: Channel Catfish Range⁵³

Channel Catfish consume invertebrates, insects, small fish, and aquatic plants. These fish can weigh on average around 1-2 kg⁵⁴.

⁴⁸ Missouri Department of Conservation. 2020. *Largemouth Bass (Micropterus salmoides)*, MO

<https://nature.mdc.mo.gov/discover-nature/field-guide/largemouth-bass>

⁴⁹ Fuller, P. et al. 2015. *Micropterus salmoides (Largemouth Bass)*, US Department of the Interior, United States Geological Survey

<https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=401>

⁵⁰ American Expedition. 2015. *Salmon Information, Photos, and Facts*, Union, MO

<https://forum.americanexpedition.us/salmon-information-facts-and-photos>

⁵¹ Fuller, P. et al. 2015. *Salmo salar (Atlantic Salmon)*, US Department of the Interior, United States Geological Survey

<https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=910>

⁵² The Royal Canadian Geographical Society. 2010. *Pacific Salmon*

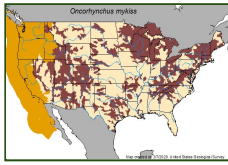
<http://www.canadiangeographic.com/wildlife-nature/?path=english/species/pacific-salmon>

⁵³ Fuller, P. et al. 2015. *Ictalurus punctatus (Channel Catfish)*, US Department of the Interior, United States Geological Survey

<https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=2341>

⁵⁴ Government of Ontario. 2014. *Channel Catfish*, Canada

<https://www.ontario.ca/page/channel-catfish>

Trout:

The most common Trout species to eat include Rainbow, Brown, and Brook Trout. Trout are opportunistic feeders and will eat whatever can be caught or scavenged such as small fish and their eggs, insects, and invertebrates. They tend to weigh about 0.7 kg on average^{5 6}.

Fig 29: Rainbow Trout Distribution Map^{5 5}

Pan Fish

Pan Fish are commonly eaten game fish that typically do not grow to a size bigger than that of a frying pan. Other species in this category include Bluegill and Sunfish.

Perch:

Perch typically eat zooplankton, small fish, and aquatic insects, weighing an average of 161.03 g^{5 8}. Perch dwell in cold, glacial lakes.

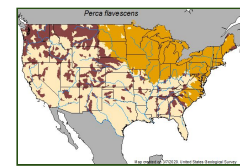
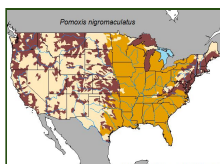


Fig 30: Yellow Perch Range^{5 7}

Crappie:

Other subspecies on top of Black Crappie include White and Blacknose Crappie. They eat zooplankton, insects, small fish, and crustaceans and weigh from 28-800 g. They inhabit cool, deep bodies of water like lakes and slow-moving rivers.

Fig 31: Black Crappie Distribution^{5 9}

Rock Bass:

Rock Bass consume smaller fish, insects, crustaceans and typically weigh no more than 0.5 kg. They live in calm waters near shorelines.

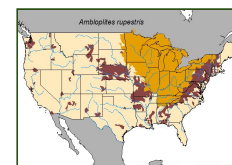


Fig 32: Rock Bass Range Map

^{5 5} Fuller, P. et al. 2015. *Oncorhynchus mykiss* (Rainbow Trout), US Department of the Interior, United States Geological Survey <https://nas.cr.usgs.gov/queries/FactSheet.aspx?SpeciesID=910>

^{5 6} Missouri Department of Conservation. 2020. *Rainbow Trout (Oncorhynchus mykiss)*, MO <https://nature.mdc.mo.gov/discover-nature/field-guide/largemouth-bass>

^{5 7} Fuller, P. et al. 2015. *Perca flavescens* (Yellow Perch), US Department of the Interior, United States Geological Survey <https://nas.cr.usgs.gov/queries/FactSheet.aspx?SpeciesID=820>

^{5 8} Wisconsin Department of Natural Resources Bureau of Fisheries Management. 2008. *Yellow Perch*, WI, PUBL-FM-710 08 <https://dnr.wi.gov/topic/fishing/documents/species/yellowperch.pdf>

^{5 9} Fuller, P. et al. 2015. *Pomoxis nigromaculatus* (Black Crappie), US Department of the Interior, United States Geological Survey <https://nas.cr.usgs.gov/queries/FactSheet.aspx?SpeciesID=400>

^{6 0} Currier, Mary, Animal Diversity Web, University of Michigan Museum of Zoology. 2020. *Pomoxis nigromaculatus* (Calico bass), MI https://animaldiversity.org/accounts/Pomoxis_nigromaculatus/#geographic_range

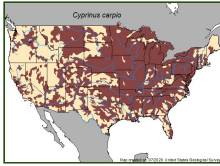
^{6 1} Fuller, P. et al. 2015. *Ambloplites rupestris* (Rock Bass), US Department of the Interior, United States Geological Survey <https://nas.cr.usgs.gov/queries/FactSheet.aspx?SpeciesID=373>

^{6 2} Washington Department of Fish & Wildlife. 2020. *Rock Bass*, WA <https://wdfw.wa.gov/species-habitats/species/ambloplites-rupestris/#howto>

Rough Fish

Rough fish are named for their undesirability with mainstream fisherman, although a few rough fish are considered a delicacy by some people. Other species include Drum, Sucker, Redhorse, Bullhead, and Eel.

Carp:



Carp eat crustaceans, small fish, and water plants. They weigh from 0.25 kg to about 3 kg^{6 5} and dwell in large rivers and lakes.

Fig 33: Common Carp Range Map^{6 3}

Gar:

The Shortnose Gar is the most widely distributed gar in the U.S, but other species including Alligator, Longnose, and Spotted Gar. They eat small fish and macroinvertebrates and can weigh up to 1.6 kg^{6 7}, although this varies by species. They live in large rivers and lakes and can adapt to polluted waters.

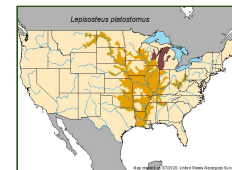
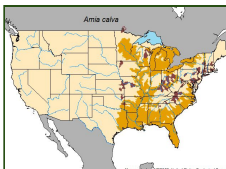


Fig 34: Shortnose Gar Distribution

Map^{6 6}

Bowfin:



Bowfin eat mostly fish and may reach about 3.9 kg^{6 9}. They live in the deep waters of biodiverse lakes and some streams.

Fig 35: Bowfin Range Map^{6 8}

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- ^{6 3} Fuller, P. et al. 2015. *Cyprinus carpio* (Common Carp), US Department of the Interior, United States Geological Survey <https://nas.er.usgs.gov/queries/FactSheet.aspx?speciesID=4>
- ^{6 4} Food and Agriculture Organizations of the United Nations. 2020. *Common carp - Natural food and feeding habits* <http://www.fao.org/fishery/afris/species-profiles/common-carp/natural-food-and-feeding-habits/en/>
- ^{6 5} Food and Agriculture Organizations of the United Nations. 2020. *Common carp - Growth* <http://www.fao.org/fishery/afris/species-profiles/common-carp/growth/en/>
- ^{6 6} Fuller, P. et al. 2015. *Lepisosteus platostomus* (Shortnose Gar), US Department of the Interior, United States Geological Survey <https://nas.er.usgs.gov/queries/FactSheet.aspx?speciesID=757>
- ^{6 7} McClure, Wally, American Fisheries Society: Montana Chapter. 2003. *Shortnose Gar*, Bozeman, MT <https://units.fisheries.org/montana/science/species-of-concern/species-status/shortnose-gar/>
- ^{6 8} Fuller, P. et al. 2015. *Amia calva* (Bowfin), US Department of the Interior, United States Geological Survey <https://nas.er.usgs.gov/queries/FactSheet.aspx?speciesID=305>
- ^{6 9} University of Florida Museum. 2020. *Bowfin (Amia Calva)*, FL <https://www.floridamuseum.ufl.edu/discover-fish/species-profiles/amia-calva/>

Summary

This report exists as a compilation of research done on the most common game animals in the U.S to find their migration patterns, habitats, human consumption rates, hunt frequency, and fodder, water, and soil intakes. The publishing of this document will result in a clearer picture of these common game animals, serving as support for research being done on human intake at superfund sites to improve assessment of risks and lessen research needed to be done for future papers in this area of work. For the future, a field research project reporting on the most common game animals' intakes and human consumption rates would be very helpful in generating data and fleshing out the information currently available.

N/A= Not Currently Available

Animal	Fodder Intake (per day)	Water Intake (per day)	Soil Intake (per day)	Human Consumption Rates (per day)
Whitetail Deer	N/A	0.95-5.7 L	N/A	N/A
Mule Deer	22 g Dry Matter/kg Body Mass	N/A	N/A	N/A
Elk	N/A	N/A	N/A	N/A
Black Bear	4,000-6,000 kcal	N/A	N/A	N/A
Brown Bear	N/A	N/A	N/A	N/A
Pronghorn	N/A	3.6 L	N/A	N/A
Caribou	34-61g Dry Matter/kg Body Mass ⁰ □ ⁷ ⁵ (Winter)	N/A	N/A	N/A
Rabbits	N/A	0.097 mL	N/A	N/A
Squirrels	N/A	N/A	N/A	N/A
Wild Pig	3-5% Body Mass	11.4-26.5 L	N/A	N/A
Wild Turkey	0.68 kg	1.36 kg	0.068 kg	Adult Farmer after Cooking Loss: 53.1 g Child Farmer after Cooking Loss: 23.2 g
Grouse	N/A	N/A	N/A	N/A
Quail	587.7 kcal/kg	0.105 g/g	N/A	N/A

Pheasant	N/A	N/A	N/A	N/A
Rock Dove (Pigeon)	N/A	N/A	N/A	N/A
Mallard	0.24 kg	0.48 kg	0.024 kg	Adult Farmer after Cooking Loss: 53.1 g Child Farmer after Cooking Loss: 23.2 g
Wood Duck	“	“	“	“
Green-Winged Teal	“	“	“	“
Mourning Dove	12-20% Body Mass	N/A	N/A	N/A
Rail	N/A	N/A	N/A	N/A
Snipe	N/A	N/A	N/A	N/A
Woodcock	N/A	N/A	N/A	N/A
Goose	N/A	N/A	N/A	N/A
Salmon	N/A	N/A	N/A	Adult Farmer Raw: 831.8 g Child Farmer Raw: 57.4 g <hr/> Adult Farmer after Cooking Loss: 509.9 g Child Farmer after Cooking Loss: 35.2 g
Largemouth Bass	N/A	N/A	N/A	“
Channel Catfish	N/A	N/A	N/A	“
Rainbow Trout	N/A	N/A	N/A	“
Perch	N/A	N/A	N/A	“
Crappie	N/A	N/A	N/A	“
Rock Bass	N/A	N/A	N/A	“
Carp	N/A	N/A	N/A	“
Gar	N/A	N/A	N/A	“
Bowfin	N/A	N/A	N/A	“

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