

Facts

National Wildlife Refuge System



“Greatest Hits” of the National Wildlife Refuge System Throughout the Year

From a single three-acre island in 1903, the National Wildlife Refuge System has grown into a nationwide network of lands and waters abounding with wildlife stories at every time of the year. That’s the good news. The bad news is that you have to make hard choices -- which of the more than 500 refuges to visit, and when. We have prepared this “Greatest Hits” lists to tempt your interest with a small sample of the stories that are waiting for you -- and to help you get started figuring out how to get them.

The people of the National Wildlife Refuge System are eager to work with you to educate the public about the wildlife and habitat with whose care we are entrusted. We thank you for your understanding and patience with our limited staff resources. Help us help you ensure a successful production or feature story by alerting us to your interest and discussing your needs as far in advance as possible. We may need this time to arrange for permits, transportation, staff to accompany you in sensitive areas if necessary, etc.

Wild animals are notoriously uninterested in your schedule, and staying in touch with refuge staff prior to your arrival can also save you a lot of time and money. Although nobody can predict precisely when the warblers will arrive, the salmon will run, or the geese will depart in any given year, refuge staff carefully monitor the conditions that influence wildlife behavior and can help you time your arrival as closely as possible to the event you wish to cover.

The U.S. Fish and Wildlife Service has two central repositories of public domain footage and images of many national wildlife refuges. In addition, many refuges have videos that they have produced for their visitor centers. Review this footage as you prepare for your trip to familiarize yourself with the lighting and terrain, and feel free to use it to supplement your own footage or images in your final production.

...and always remember, this list is just the tip of the iceberg!

***For more information about the refuge system,
point your browser to <http://refuges100.fws.gov> or call 202-208-5634***

—*All Year*—

A Darling Spot Anytime

Named for a noted cartoonist, Federal Duck Stamp artist and former director of the Fish and Wildlife Service's predecessor agency, J.N. "Ding" Darling National Wildlife Refuge (NWR) on Florida's Gulf Coast is a feast for the lens all year round. Several walking trails, two canoe trails and a wildlife drive take you deep into spectacular coastal scenery, where you can film an extensive wading bird lineup—including the heartbreakingly beautiful roseate spoonbill—sharing the canals with frolicking otters, lurking alligators and the occasional bobcat. The refuge's estuarine seagrass beds and mangrove islands provide habitat for manatees, loggerhead turtles and the exceedingly rare American crocodile.

When: All year. Wildlife and tourist activity peaks November-April.
Where: Sanibel Island, some 15 miles southwest of Ft. Myer
Contact: J.N. "Ding" Darling NWR, (813) 472-1100
Website: <http://dingdarling.fws.gov>

A Pacific Paradise... with a Past

One of the most remote coral atolls on Earth, Midway Atoll was the site of the bloody 1942 battle that marked the turning point in the war with Japan—and was the subject of a recent blockbuster movie. Some 150 residents share the island with nearly two million sea birds, including 70 percent of the world's population of Laysan albatross — better known as "gooney birds." Midway also serves as a major breeding area for the endangered Hawaiian monk seal, threatened green sea turtle and spinner dolphin. Midway's coral reefs are among the world's finest.

When: Spectacular marine life all year. Gooney birds come ashore November-June
Where: Midway Atoll, 1,500 miles northwest of Honolulu, HI
Contact: Midway Atoll NWR, (808) 599-3914
Website: <http://midway.fws.gov>
Footage: (202) 208-5611

Where The Buffalo Still Roam

Thanks to national wildlife refuges in Montana, Nebraska and Oklahoma, bison still graze the Western grasslands as they did hundreds of years ago -- an important part of the prairie that also supports a tremendous variety birds and plants found nowhere else. Bison, not known for being shy, can be observed and filmed from refuge auto tour routes most of the year. Especially good times are when the cows birth calves in late spring and when the males rut -- fight over mates -- in July and August. In scenes reminiscent of

the old West, refuge staff on horseback periodically herd the bison to new pastures to prevent overgrazing. Each fall they round up and auction off excess bison especially to Native American tribes to maintain herds at optimal size.

When: April-May--calving. July-August--rutting. September-October--roundup.
Where: Moiese, MT, 45 miles north of Missoula
Valentine, NE, 130 miles south of Pierre. SD
Indiahoma, OK, 110 miles southwest of Oklahoma City
Contact: National Bison Range (MT), (406) 644-2211
Fort Niobrara NWR (NE), (402) 376-3789
Wichita Mountains Wildlife Refuge (OK), (580) 429-3221
Websites: <http://bisonrange.fws.gov>
<http://mountain-prairie.fws.gov/refuges/niobrara/niobrara.htm>
<http://southwest.fws.gov/refuges/oklahoma/wichita.html>
Footage: (202) 208-5611

—*January*—

Wintering White Pelicans

More than 30,000 white pelicans cover the Salton Sea like snow drifts when they spend the winter in this warm, desert climate loafing and feeding on the millions of tilapia that inhabit this unique desert oasis. Thousands of brown pelicans, waterfowl, eared grebes and shorebirds also are present. The annual Salton Sea International Bird Festival takes place in February.

When: January-February
Where: Calipatria, CA, 140 miles east of San Diego
Contact: Sonny Bono Salton Sea NWR, (760) 348-5278
Website: <http://pacific.fws.gov/salton/default.html>
Footage: (304) 876-7675

Gentle Giants in Crystal Clear Waters

As the oceans cool along the Florida coast, more than 300 manatees congregate in the warm, spring-fed waters of Kings Bay. Underwater visibility here is excellent and these gentle "sea cows"--reaching 12 feet long and 3,500 pounds--are cooperative subjects for the underwater videographer — they may even swim up and bump the camera! Although endangered, manatee numbers are increasing thanks in part to efforts of Crystal River refuge, which includes "Manatee Sanctuary Areas" to protect the state's largest herd from their number one threat — boat traffic.

When: January-March
Where: Crystal River, FL. 75 miles north of St.

Petersburg

Contact: Crystal River NWR, (352) 563-2088

Website: <http://crystalriver.fws.gov>

Moonlight Through Mossy Trees

Time your arrival to the full moon to film a real life Jurassic Park -- the Okefenokee is one the nation's oldest and most primitive swamps, and 120 miles of canoe trails lead through the prehistoric panorama of moss-draped cypress trees and trembling grassy peat prairies. The refuge is a major wintering area for elegant wading birds such as sandhill cranes and ibis, as well as songbirds, wood ducks, hooded mergansers and teal, all of which can be observed and filmed from observation platforms sprinkled throughout the swamp. Alligator mating season starts in April and the deafening roar of the males guarding their territory reverberates across the tannin-stained waters to complete the illusion that the age of the dinosaurs never really passed.

When: January for wintering birds, April for alligator mating

Where: Folkston, GA, about 45 miles northwest of Jacksonville, FL

Contact: Okefenokee NWR, (912) 496-7366

Website: <http://okefenokee.fws.gov>

Footage: (304) 876-7675, (202) 208-5611

"Million Mallards" at White River

Arkansas' White River National Wildlife Refuge welcomes the largest concentration of wintering mallard ducks anywhere in the world. The refuge also features cypress and oak trees so enormous that black bears give birth to their cubs high in their trunks--60 feet above the flooded forest floor below. The White River Basin has been recognized as a "Wetland of International Importance" under the Ramsar Convention, and the ecological value of White River refuge has been compared to that of the Everglades. Take a guided boat tour to see the wonders of this mallard milieu.

When: Mallard populations peak in January

Where: DeWitt, AR, 80 miles southeast of Little Rock

Contact: White River NWR, (870) 946-1468

Website: <http://southeast.fws.gov/whiteriver/index.html>

Footage: (204) 876-7675, (202) 208-5611

—March—

Spring Songbird Serenade

There's no better place to catch the migration sensation than the coniferous forests and tallgrass prairie of the Red River Valley of northwestern Minnesota. The geese show up in March, followed shortly thereafter by the ducks --

first mallards, then scaup, then ringnecks and redheads. In April, successive waves of warblers, each species in full breeding plumage like an Audubon guide, come to life, cavorting on the branches by day. At night wolves and moose play out the ancient rituals of predator and prey.

When: March-May

Where: Middle River, MN, 130 miles northeast of Fargo, ND

Contact: Agassiz NWR, (218) 449-4115

Website: <http://midwest.fws.gov/Agassiz/>

Giant Sea Bird Colony

Imagine the noise! California's Farallon Islands contain the largest seabird colony south of Alaska, hosting more than 300,000 birds of 12 species each summer. The Farallons also provide pupping and haul out areas for six marine mammal species. After an absence of more than 100 years, northern elephant seals returned in 1959 and produce around 200 pups a year. Northern fur seals returned in 1996 and began breeding again. A long-term monitoring program is unraveling the natural history of the white shark in the waters around the Farallons.

When: March-August--sea birds; October-December--sharks; January-March--elephant seals

Where: Newark, CA, 30 miles south of San Francisco

Contact: Farallon NWR, (510) 792-0222

Website: <http://desfbay.fws.gov>

A Blizzard of Snow Geese

The noise is thunderous, the color dazzling, the sight breathtaking. Up to one million snow geese spiral down on Sand Lake National Wildlife Refuge, one of the top 15 "birding hotspots" in North America, according to *Wild Bird* magazine. It is here that they rest and feed to gather enough strength for the long flight north to their Arctic breeding grounds. Visitors can witness this magnificent sight from the 15-mile auto tour route and during the annual Eagle Day celebration the last Sunday in March.

When: Mid- to late March

Where: Columbia, SD, about 200 miles southeast of Bismarck, ND

Contact: Sand Lake NWR, (605) 885-6320

Website: <http://sandlake.fws.gov>

Muskox in Winter

A frigid arctic wind hisses across the moon-like landscape, formed long ago by now dormant volcanic forces. Snow swirls from the ground like smoke over the fluid and ever-changing drifts. Standing complacently in this severe, yet beautiful setting is a herd of muskox, tails to the wind, heads down, massive horns seemingly draped over their wooly heads and their long, dark hair flowing in the wind...

a typical scene from Nunivak Island, the westernmost portion of Yukon Delta National Wildlife Refuge, during the month of March.

When: March
Where: Nunivak Island, west of Bethel, AK
Contact: Yukon Delta NWR, (907) 543 3151
Website: <http://yukondelta.fws.gov>
Footage: (202) 208-5611

Take a Voyage on the M/V Tiglax

The 120-foot, state-of-the-art research vessel *Tiglax* is essential to managing the Alaska Maritime National Wildlife Refuge, more than 2,500 islands, rocks and headlands -- a spectacular blend of tundra, forest, cliffs, volcanoes, beaches, lakes and streams, including nearly all of Alaska's seabird nesting habitat. The vessel typically travels 160 to 200 days at sea each year in support of a multitude of scientific activities. With a crew of six, it can accommodate up to 16 researchers at one time.

When: March-October
Where: Homer, AK (home port)
Contact: Alaska Maritime NWR, (907) 235-6546
Website: <http://alaskamaritime.fws.gov>

— *April* —

Shore Bird Migration

Hundreds of thousands of dunlin and western sandpipers and gray and white shorebirds gather at Grays Harbor, Washington, to feed intensively for two weeks before flying non-stop to their nesting grounds in the Arctic. One of four major staging areas for shorebirds in North America, Grays Harbor is one of the nation's top "birding hotspots" according to *Wild Bird* magazine. Enormous flocks maneuver in formation, flashing between white and gray, in an aerial ballet. Up to 35 species of migrating shorebirds, peregrine falcons and merlins are also present. The annual Grays Harbor Shorebird Festival takes place at this time.

When: Last week in April and first week in May
Where: Hoquiam, WA, 80 miles southwest of Olympia
Contact: Grays Harbor NWR, (360) 753-9467
Website: <http://graysharbor.fws.gov>

Wading Bird Migration and Nesting

The scarce wetlands of the Great Basin desert in Nevada provide major nesting areas for American avocets (24,000), black-necked stilts (8,000) and white-faced ibis. Up to 10,000 ibis feed in the agricultural fields and shallow marshes of the Lahontan Valley and build their platform nests in the bulrushes. They stage on Stillwater

National Wildlife Refuge for the fall migration. The Stillwater marshes also are a migration stopover for up to 100,000 long-billed dowitchers (90 percent of the Pacific Flyway population), 67,000 Wilson's phalaropes and large numbers of other shorebirds. The annual Spring Wings Bird Festival is in mid-May.

When: Mid-April-early July for migration and nesting
Where: Fallon, NV, 60 miles east of Reno
Contact: Stillwater NWR, (775) 423-5128
Website: <http://stillwater.fws.gov>

White Pelican Nesting Colony

Anaho Island, located in Nevada's Pyramid Lake, hosts one of the largest white pelican nesting colonies in western North America. In 1999, more than 20,000 adult pelicans successfully reared over 10,000 juvenile birds. Spectacular flight acrobatics occur as the adults and newly fledged young feed in the nearby Stillwater wetlands. The majority of these birds migrate from Anaho Island to Salton Sea National Wildlife Refuge for the winter. California gulls, great blue herons and double-crested cormorants also have nesting colonies on the island.

When: April - July
Where: Pyramid Lake, NV, 30 miles north of Reno
Contact: Anaho Island NWR, (775) 423-5128
Website: <http://stillwater.fws.gov/anaho.html>

A Plethora of Pelicans

Resembling white, wide-bodied jets, thousands of pelicans circle Chase Lake National Wildlife Refuge every spring. Home to the largest breeding colony of American white pelicans in North America, the refuge boasts a population of nearly 30,000 pelicans—a far cry from the 50 birds found in 1908 when the refuge was established. In between salamander snacks, the pelicans make daily trips up to 150 miles away to feed on freshwater fish.

When: Mid-April until late August
Where: Woodworth, ND, 90 miles northeast of Bismarck
Contact: Chase Lake NWR, (701) 752-4218
Website: <http://mountain-prairie.fws.gov/refuges/chase>
Footage: (304) 876-7675

Crane and Swan Migration

Each spring and fall many thousands of sandhill cranes and trumpeter and tundra swans migrate through the "bottleneck" of Alaska's Upper Tanana Valley known as the Tetlin Passage. Depending on the weather conditions that season, the majority pass through in a short 3 to 5 day period, and more than 21,000 cranes have been counted in just a few hours.

When: April 15-May 12. The last 2 weeks of September are usually best for all three species
Where: Along the Tanana River near the Canadian border, about 320 miles northeast of Anchorage
Contact: Tetlin NWR, (907) 883-5312
Website: <http://tetlin.fws.gov>
Footage: (202) 208-5611

— May —

Long March of the Arctic Caribou

After a 700-mile journey from wintering areas in Canada, tens of thousands of caribou from the Porcupine herd give birth on their traditional calving grounds — a band of snow-patched, wet and windy tundra on the Arctic National Wildlife Refuge between the Katakaturuk and Kongakut rivers, with the Brooks Range mountains and the Beaufort Sea coast as a backdrop. Special arrangements are necessary to fly to this remote site, but the spectacle is worth it. Arctic refuge is the largest unit in the National Wildlife Refuge System, and contains the largest wilderness area in the system.

When: Mid-May through early June, depending on weather conditions
Where: The Arctic coastal plain in far northeastern Alaska
Contact: Arctic NWR, (907) 456-0250
Website: <http://arctic.fws.gov>
Footage: (304) 876-7675, (202) 208-5611

An Intimate Encounter with Eagles

The 42,000-acre Tamarac National Wildlife Refuge in the glacial lake country of northwestern Minnesota provides a number of observation points where visitors can use binoculars and telephoto lenses to get an intimate view of more than 20 bald eagle nests. Each May, the Detroit Lakes Festival of Birds brings thousands of visitors to celebrate the eagles and nearly 250 other bird species that inhabit or pass through the refuge, which is also home to a pack of gray wolves.

When: May
Where: Rochert, MN, about 200 miles northwest of Minneapolis
Contact: Tamarac NWR, (218) 847-2641
Website: <http://midwest.fws.gov/tamarac>

Nesting Sandhill Cranes

To many, Grays Lake means cranes. The refuge hosts the largest nesting population of greater sandhill cranes in the world — more than 200 pairs nest there annually. The

scenic beauty of this high Rocky Mountain marsh is spectacular and high points around the valley provide overviews of the largest hardstem bulrush marsh in North America. Caribou Mountain (9,803 ft.) is a picturesque backdrop to Grays Lake and is the second highest mountain in southeastern Idaho.

When: May-June
Where: Wayan, ID, 60 miles from Jackson Hole, WY
Contact: Grays Lake NWR, (208) 574-2755

Courtship of the Sprague's Pipit

Described by William Shakespeare as a "skylarking passerine," the secretive and somewhat solitary Sprague's pipit performs an amazing courtship ritual on pristine prairie hilltops. Flying high into the sky until they resemble tiny black dots, they plummet towards earth with the bravado of a skydiver. Their high-pitched call is not unlike that of a twirled party favor... "tzeeee... tzeeee...".

When: May and June
Where: Kenmare, ND, 160 miles from Bismarck
Contact: Lostwood NWR, (701) 848-2722
Website: <http://lostwood.fws.gov>

Spring Shorebird Migration and Horseshoe Crab Breeding

A spectacle of avian gluttony along the Delaware Bay, where Cape May National Wildlife Refuge, the nation's Number Two "birding hotspot" according to *Wild Bird* magazine, protects crucial habitat on the southern tip of New Jersey. Each spring, thousands of ponderous, prehistoric horseshoe crabs make their way to the beach from the ocean depths to lay their eggs above the high tide line — just in time for the arrival of a million ravenous, exhausted birds from South America. A feast ensues and red knots, sandpipers, sanderlings and dunlins gorge themselves on crabs, nearly doubling their weight in just days before continuing on their journey. This is a particularly important story in light of rising concern about the decline of horseshoe crabs.

When: Mid-May through mid-June
Where: Cape May, NJ, 45 miles south of Atlantic City
Contact: Cape May NWR, (609) 463-0994
Website: <http://capemay.fws.gov>

Virginia Shorebird Migration

Although famed for the feral ponies roaming the beaches, the island of Chincoteague is a paradise for birds — more

than 300 species of birds are known to occur on the refuge, and in early spring skies give way to the refuge's internationally renowned shorebird migration. Visitors flock to the 14,000-acre refuge by the hundreds of thousands during the spring migration to add unusual shorebirds to their life list, or just to sit and observe as many as 15,000 birds in any one day!

When: May
Where: Chincoteague Island, VA, 150 miles east of Washington, DC, on Virginia's Atlantic coast
Contact: Chincoteague NWR, (757) 336-6122
Website: <http://chinco.fws.gov/>
Footage: (304) 876-7675, (202) 208-5611

Offshore Sanctuary for the "Clown of the Sea"

During the nesting season, 16-acre Petit Manan Island off the coast of Maine is aflutter with seabirds, many of which are at the southern end of their nesting range--and therefore found nowhere else in the United States. Common, arctic and endangered roseate terns share the island's rocky shores, grassy patches and raspberry thickets with Atlantic puffins, leach's storm petrels, black guillemots, laughing gulls, and common eiders.

When: May-early August
Where: Petit Manan Island. Commercial tour boats run out of Bar Harbor, ME, 50 miles from Bangor
Contact: Petit Manan NWR, (207) 546-2124
Website: <http://petitmanan.fws.gov>

Clouds of Shorebirds

During the spring and fall migrations, the barren salt flats of Quivira National Wildlife Refuge are alive with action, as the relentless Kansas wind blows the edge of the shallow water this way and that like waves rising on a beach. Great clouds of yellowlegs, black-necked stilts, American avocets and numerous species of sandpipers rise and fall, following the water's edge and creating an amazing visual spectacle as they intermingle on this unique habitat.

When: May and June
Where: Stafford, KS, 85 miles northwest of Wichita
Contact: Quivira NWR, (316) 486-2393
Website: <http://quivira.fws.gov>

— June —

Great Blue Heron Nesting Colony

In a scene reminiscent of the movie *Jurassic Park*, hundreds of great blue herons build their nests in branches 40 to 100 feet above Shad Island, in the Missisquoi River delta in northwestern Vermont. By June, the hungry shrieks of more than a thousand heron chicks echo over much of the 5,800-acre refuge, but the parents somehow retain their elegant gliding grace even as they scramble to satisfy their insatiable young.

When: Nesting in May, chicks hatch in early June and fledge by mid-July
Where: Swanton, VT, 35 miles north of Burlington
Contact: Missisquoi NWR, (802) 868-4781
Website: <http://www.fws.gov/r5lcfwro/Miss.html>

Sea Turtles Come Ashore at Archie Carr NWR

Just north of Pelican Island, the first national wildlife refuge, is the most important nesting area for sea turtles in the western hemisphere. A quarter of all loggerhead sea turtle and more than a third of all green sea turtle nests in the United States occur at Florida's Archie Carr National Wildlife Refuge. The turtles travel from hundreds of miles away, hauling themselves awkwardly up the same beaches where they themselves hatched to build their nests and lay 100 or more eggs above the high tide mark. One dark evening two or three months later, the eggs hatch and young turtles dig their way through the sand to the surface, get their bearings from the luminescent surf--and rush for the sea.

When: June-August
Where: Sebastian, FL, 92 miles southeast of Orlando
Contact: Archie Carr NWR, (561) 562-3939
Website: <http://archiecar.fws.gov/>
Footage: (304) 876-7675, (202) 208-5611

— July —

Nesting of the White-faced Ibis

No man-made features are in sight... only thousands of nesting white-faced ibis in a seemingly endless patchwork of alkali bulrush, shallow open water and sparkling mudflats. The black, iridescent feathers of the ibis shimmer in the sun, as numerous herons, egrets, terns and gulls add a delightful diversity. The towering Promontory and Wasatch mountains of northern Utah provide a magnificent backdrop to this spectacular wildlife scene.

When: July
Where: Brigham City, UT, 60 miles north of Salt Lake City
Contact: Bear River Migratory Bird Refuge,
(435) 723-5887
Website: <http://mountain-prairie.fws.gov/bearriver/>

Giant Bears Snack on Salmon

Darting, splashing and seemingly disoriented schools of sockeye salmon crowd into the shallow O'Malley Creek each summer to spawn and die as they have for thousands of years. Eagerly anticipating the easy pickings, as many as 20 of Kodiak Island's famed giant brown bears congregate to gorge themselves in preparation for their long winter nap.

When: Late July-early August
Where: Kodiak Island, AK
Contact: Kodiak NWR, (907) 487-2600
Website: <http://kodiak.fws.gov>
Footage: (304) 876-7675, (202) 208-5611

— August —

Clouds of Shorebirds

During the spring and fall migrations, the barren salt flats of Quivira National Wildlife Refuge are alive with action. The relentless Kansas wind blows the edge of the shallow water this way and that like waves rising on a beach. Great clouds of yellowlegs, black-necked stilts, American avocets, and numerous species of sandpipers, rise and fall, following the waters edge and creating an amazing visual spectacle as they intermingle on this unique habitat.

When: August-mid-September
Where: Stafford, KS, 85 miles northwest of Wichita
Contact: Quivira NWR, (316) 486-2393
Website: <http://quivira.fws.gov>

American Avocet Migration

As many as 250,000 American avocets have been recorded in a single day's count at Utah's Bear River refuge during their peak migration. Avocets congregate in large feeding flocks scattered over several miles. The birds move endlessly on their slender gray-blue legs, their heads moving feverishly from side to side as they sweep insects from the wet mud with their beaks. When these flocks take to the air, the horizon is often filled with specks of black and white, like salt and pepper thrown into the wind, changing directions in sharp unison. The birds gather,

feed, and become more and more restless before finally taking flight for their wintering grounds in Mexico.

When: August
Where: Brigham City, UT, 60 miles north of Salt Lake City
Contact: Bear River Migratory Bird Refuge,
(435) 723-5887
Website: <http://mountain-prairie.fws.gov/bearriver.html>

Wading Bird Migration and Nesting

American avocets, black-necked stilt and up to 10,000 white-faced ibis stage their migrations in the Great Basin's most important wetlands in preparation for the fall migration -- feeding in the agricultural fields and shallow marshes of the Lahontan Valley. The Stillwater marshes also are a migration stopover for up to 100,000 long-billed dowitchers--90 percent of the Pacific Flyway population--67,000 Wilson's phalaropes and large numbers of other shorebirds.

When: August-October for fall migration
Where: Fallon, NV, 60 miles east of Reno
Contact: Stillwater NWR, (704) 423-5128
Website: <http://stillwater.fws.gov>

– September –

Primordial Paradise in Izembek Lagoon

As winter comes to the tundra of Alaska's Yukon Kuskokwim Delta and Canada's high arctic, more than 150,000 black brant descend on the eelgrass-rich estuaries near the Aleutian Islands. Shifting flocks of brant share the shallow lagoon with tens of thousands of Canada and emperor geese, ducks, clouds of shorebirds, foraging sea otters, gray whales, and orcas, all set against a backdrop of steaming volcanoes and brown bears feeding on salmon-filled streams.

When: Mid-September-mid-October
Where: Cold Bay, AK, at the extreme end of the Alaska Peninsula
Contact: Izembek NWR, (907) 532-2445
Website: <http://izembek.fws.gov>
Footage: (202) 208-5611

Alaskan Shorebird Migration

Each fall, millions of shorebirds descend upon the Bering Sea coast of Yukon Delta National Wildlife Refuge. Some have just finished nesting on the tundra and coastal

meadows of the refuge. Others have come from breeding grounds farther north in Alaska and Siberia. All consume prodigious quantities of invertebrates or berries to help fuel their long migration to southern wintering areas. For several weeks each year, sandpipers bound for Panama, Argentina, and Australia, curlews en route to Hawaii and Tahiti, and godwits headed to New Zealand share the mudflats and meadows in an extravagant--but crucial--gluttony.

When: September
Where: Bethel, AK
Contact: Yukon Delta NWR, (907) 543-3151
Website: <http://yukondelta.fws.gov>
Footage: (202) 208-5611

Desert Bighorn Sheep Capture

The Kofa Mountains were once known as the Shit House Mountains because some said the slopes and peaks resembled outhouses. Be that as it may, these mountains, rising sharply from the surrounding desert plains, make ideal desert bighorn sheep country. Although the harsh terrain and endangered sheep's elusive nature are formidable obstacles to journalists and documentary producers, the refuge provides a helping hand each September – once the worst of the intense summer heat breaks – with an action-packed example of wildlife management in action. After flushing the wary animals into the open with low flying helicopters, refuge staff use netguns to capture the sheep for testing and vaccination. If the herd is determined to exceed the optimal size, some animals may be relocated elsewhere in the state.

When: September
Where: Yuma, AZ
Contact: Kofa NWR, (520) 783-7861
Website:
<http://southwest.fws.gov/refuges/arizona/kofa.html>

Crane and Swan Migration Redux

Each spring and fall many thousands of sandhill cranes and trumpeter and tundra swans migrate through the “bottleneck” of the Upper Tanana Valley known as Alaska’s Tetlin Passage. Depending on the weather conditions that season, the majority often pass through in a short 3-5 day period, and more than 21,000 cranes have been counted in just a few hours.

When: The last 2 weeks of September
Where: The Tanana River near the Canadian border.

320 miles northeast of Anchorage

Contact: Tetlin NWR, (907) 883-5312
Website: <http://tetlin.fws.gov>
Footage: (202) 208-5611

Fall Colors in Northern Minnesota

A soothing feast for the eyes for thousands of visitors every fall. Brilliant red, orange and yellow maple leaves swirl like campfire sparks in the breeze across a glacial landscape of mixed forest, marsh, and lakes. Overhead, migrating redtail, broadwing and sharp-shin hawks ride the thermals, silently slipping south towards the tropics.

When: Late September
Where: Rochert, MN, 200 miles north of Minneapolis
Contact: Tamarac NWR, (218) 847-2641
Website: <http://midwest.fws.gov/tamarac/>

— October —

Largest Wintering Elk Herd

Every fall, thousands of elk begin their traditional trek from their high summer range in Grand Teton National Park, southern Yellowstone National Park, and the surrounding national forests to their lower elevation winter home in Jackson Hole. Heavy snows force the animals to travel up to 100 miles to lower elevations in search of food, and usually more than 7,500 elk make their way to the National Elk Refuge to spend the winter. The National Elk Refuge also boasts more than 500 wintering bison, free roaming wolves and one of the largest wintering populations of trumpeter swans.

When: Migration begins in late October, elk remain on the refuge through the winter
Where: Jackson, WY
Contact: National Elk Refuge, (307) 733-9212
Website: <http://nationalelkrefuge.fws.gov>
Footage: (304) 876-7675, (202) 208-5611

Mighty Moose Rut

Koyukuk National Wildlife Refuge, in northwestern Alaska, has more moose per square mile than almost anywhere. As the summer fades, the males' antlers harden... and their tempers shorten. In October, as the Yukon and Koyukuk rivers begin to freeze, the annual rutting season begins. With mating rights for as many as 20 cows at stake, the bulls square off and then--ears back, neck hairs bristling--they lunge forward again and again, antlers clattering against antlers, ripping up vegetation and

knocking over small trees. Eventually, the more powerful and determined bull is victorious and the vanquished male retreats to search for an easier opportunity.

When: October
Where: Along the Yukon and Koyukuk River 5 to 50 miles north and west of Galena
Contact: Koyukuk NWR, (907) 656-1231
Website: <http://koyukuk.fws.gov>
Footage: (202) 208-5611

Trumpeter and Tundra Swan Migration

Whistles and calls echoing among the massive and inspiring Centennial Mountains announce the arrival of 2,000 trumpeter and tundra swans and mark the beginning of fall and winter in this high mountain valley. For a few weeks, these migrants from Alaska, Canada and the Arctic join the resident trumpeter swans on the many wetlands comprising Montana's Centennial Valley. For centuries, this gathering of birds had provided people the opportunity to be in the company of swans as they feed and rest during their long trek across the Rocky Mountains.

When: Late October and early November
Where: Lima, MT, 150 miles southwest of Bozeman
Contact: Red Rock Lakes NWR, (406) 276-3536
Website: <http://redrocks.fws.gov>
Footage: (304) 876-7675

Canada Goose Eruption

Designated by the Ramsar Convention as a "Wetland of International Importance," Wisconsin's Horicon Marsh is the largest freshwater cattail marsh in the United States. Throughout October, small flocks of geese gather on the refuge, swelling the population towards 300,000. With the first severe cold snap, the birds depart in a massive aerial exodus--and the refuge is deserted within hours.

When: October
Where: Mayville, WI, 60 miles northwest of Madison
Contact: Horicon NWR, (920) 387-2658
Website: <http://midwest.fws.gov/horicon/>
Footage: (304) 876-7675, (202) 208-5611

Thousands of Sandhill Cranes

Each fall, up to 200,000 sandhill cranes are highlighted against the backdrop of the setting sun over the Big Salt Marsh on Quivira National Wildlife Refuge during their southward migration. Their unique calls join a cacophony of thousands of ducks and geese also using the wetlands,

frequently drowning out the conversation of visitors. Endangered whooping cranes, sometimes as many as 20, can often be spotted as their brilliant white plumage stands out in the sea of gray sandhill cranes.

When: Mid-October-late November
Where: Stafford, KS, 85 miles northwest of Wichita
Contact: Quivira NWR, (316) 486-2393
Website: <http://quivira.fws.gov>

Waterfowl Concentration

Peaking at 1.5 million birds each fall, one of the world's largest concentrations of waterfowl stops over at California's Butte Sink. Massive flocks of northern pintail, American wigeon and other duck species can be seen flying and feeding against the backdrop of the beautiful Sutter Buttes.

When: Mid-October-mid-December
Where: Colusa, CA, 70 miles northwest of Sacramento
Contact: Butte Sink NWR, (530) 934-2801
Website: <http://sacramentovalleyrefuges.fws.gov>

Fall Waterfowl Migration at Cape May

The birds arrive in force by the middle of October - more than two dozen species of waterfowl. Thousands of low-flying geese caress the shoreline as the sun rises over the Atlantic, while on the inland freshwater wetlands, herons and egrets stalk their breakfast. This New Jersey refuge boasts one of the finest auto tour routes in the refuge system - 8 miles along a dike dividing the fresh- and saltwater marshes, offering a rare opportunity to view both habitats from a single moving blind.

When: Mid October-November
Where: Oceanville, NJ, 12 miles from Atlantic City
Contact: Edwin B. Forsythe NWR, (609) 652-1665
Website: <http://forsythe.fws.gov>
Footage: (202) 208-5611

Whoopers Arrive at Aransas

"When we hear this call we hear no mere bird. He is the symbol of our untamable past," said the naturalist Aldo Leopold about the whooping crane, which at 5 feet and with a wingspan of 7 feet, is the largest bird--and one of the most endangered--in North America. For many years, the annual arrival of the whoopers at Aransas National Wildlife Refuge in late October was a time of tense anticipation. Although the returning flock has grown from a low of 15 in 1941 to more than 200 today the future of

these magnificent birds -- who mate for life after their intricate courtship dance -- is far from guaranteed. The best views are by boat but often you can see a family of whooping cranes from the 40-foot observation tower, which is equipped with telescopes. Aransas is the only remaining stopover for whooping cranes.

When: October-April
Where: Austwell, TX, 50 miles from Corpus Christi
Contact: Aransas NWR, (512) 286-3559
Website: <http://southwest.fws.gov/refuges/texas/aransas.html>
Footage: (304) 876-7675, (202) 208-5611

— November —

Snow Geese – Past and Present

In 1804, the Lewis and Clark expedition camped on or near the present DeSoto National Wildlife Refuge, where they observed their first badger and noted “great numbers of wild geese,” both of which are still abundant on the refuge today. During the fall migration, the snow geese begin to arrive at DeSoto and the numbers build up slowly. By November, nearly 800,000 raucous, ravenous geese briefly inhabit the refuge, before abruptly departing south ahead of the winter snows.

When: November
Where: Missouri Valley, Iowa, 25 miles from Omaha, NE
Contact: DeSoto NWR, (712) 642-4121
Website: <http://midwest.fws.gov/desoto/>
Footage: (304) 876-7675

Paradise with a Past Shines Again

One of the most remote coral atolls on Earth, Midway Atoll was the site of the 1942 battle that marked the turning point in the war with Japan. Some 150 residents share the island with nearly two million sea birds that nest on the island, including 70 percent of the world’s population of Laysan albatross--better known as “gooney birds.” Midway also serves as a major breeding area for the endangered Hawaiian monk seal, the threatened green sea turtle and the spinner dolphin. Midway’s coral reefs are among the world’s finest.

When: Gooney birds come ashore November-June. Spectacular marine life all year.
Where: Midway Atoll, 1,500 miles northwest of Honolulu

Contact: Midway Atoll NWR, (808) 599-3914
Website: <http://midway.fws.gov>
Footage: (202) 208-5611

Festival of the Cranes at Bosque

Bosque del Apache means “woods of the Apaches,” so named by Spaniards who observed Apaches in this riverside forest at the northern edge of the Chihuahuan desert. Now, tens of thousands of birds--including sandhill cranes, Arctic geese and many kinds of ducks--gather each autumn and stay through the winter. Feeding snow geese erupt in explosions of wings when frightened by a stalking coyote. At dusk, flight after flight of geese and cranes return to roost in the marshes. Each November, the Festival of the Cranes celebrates autumn in the Southwest with music, food and educational events.

When: Late November
Where: Socorro, NM, 75 miles south of Albuquerque
Contact: Bosque del Apache NWR, (505) 835-1828
Website: <http://southwest.fws.gov/refuges/newmex/bosque.html>
Footage: (304) 876-7675, (202) 208-5611

Rafts of Canvasback Ducks

On the Mississippi River--where Minnesota, Wisconsin and Iowa meet--enormous “rafts” of canvasback ducks, each more than a mile across, undulate in the swells of the “big river.” These regal ducks feed on what remains of once abundant wild celery plants. In November, up to three quarters of the continental canvasback population is found in just two of the pools behind the Mississippi River’s locks and dams, nearly 300,000 in Pool 9 alone.

When: November
Where: LaCrosse, WI, and McGregor, IA, 100 miles west of Madison, WI
Contact: Upper Mississippi Fish and Wildlife Refuge, (507) 452-4232
Website: http://www.umesc.usgs.gov/umr_refuge.html

– December –

Wintering Bald Eagles

More than 1,000 bald eagles, the largest concentration in the contiguous United States, spend the winter in the Klamath Basin, the nation’s Number 10 “birding hotspot” according to *Wild Bird* magazine. During the day, they can be seen feeding on Lower Klamath and Tule Lake marshes. Many and varied other raptors, including golden eagle,

northern harrier, and red-tailed and rough-legged hawks, also are present. The most spectacular viewing is the “fly out” at dawn each day when the eagles leave their night roost in Bear Valley to fly out into the marshes to feed. The annual Bald Eagle Festival occurs in mid-February.

When: December-February
Where: Tule Lake, CA, on the California-Oregon border
Contact: Klamath Basin NWR Complex, (530) 667-2231
Website: <http://www.klamathnwr.org/>
Footage: (202) 208-5611

Flooded Trees and Cypress Knees

A unique and intimate spectacle for the intrepid... Every year, some 200,000 geese and ducks spend the winter among the flooded cypress knees in the only large remnant of the bottomland hardwood forest that once covered 2.5 million acres in the Missouri Bootheel. Those brave enough to don chest waders and make their way across the flooded forest floor may be rewarded with a glimpse of otters, mink and other elusive critters in addition to waterfowl.

When: Waterfowl numbers peak in December and January
Where: Puxico, MO, 150 miles south of St. Louis
Contact: Mingo NWR, (573) 222-3589
Website: <http://midwest.fws.gov/mingo/>