



On autumn and spring evenings, hundreds of thousands, sometimes millions of birds migrate across North America. Cutting-edge recording devices are capturing the tiny chips and chirps these birds make while in flight, helping conservationists plot a protected course. On any given night in the spring and fall, hundreds of thousands—and at times millions—of birds migrate across North America. From large herons to warblers to vireos, sparrows, and other smaller species, blankets of birds flow across the continent. While it's a largely unseen migration, it's not a silent one. Most of these birds vocalize while on the wing, making night flight calls, dubbed NFCs by scientists, that sound nothing like the better-known melodious breeding songs of spring. Barely discernible by humans, these chirps and tweets and buzzes, flowing overhead under cover of darkness, are increasingly being captured by specialized acoustic monitoring equipment that can record, analyze, and identify the call makers. Most birds migrate at night. The stars and the moon aid night-flying birds' navigation. Free of daytime thermals, the atmosphere is more stable, making it easier to maintain a steady course, especially for smaller birds such as warblers that might fly as slowly as 15 miles per hour. Cooler nighttime temperatures also help keep hard-working birds from overheating. And for birds that frequently wind up on the menu of hawks, cats, and other daytime predators, flying under cover of darkness can be a lifesaver.

While scientists aren't certain about the reasons that migrating birds call when flying at night, there are some widely accepted theories. Research has shown that birds do it more frequently

SILHOUETTES ON THE *Moon* Nighttime Migration

in rough weather and when navigating headwinds and crosswinds, so the calls likely help birds stick with their flocks. Communicating at night might also prevent fatal crashes. High call rates coincide with incidences of mass collisions with tall, lit structures such as high-rises and offshore energy structures. It may be that night flight signals serve as a warning to other birds about such perils.

Acoustic monitoring is allowing researchers to ask increasingly specific questions about how migrating birds interact with the landscapes around them. It's not known how birds navigate

Did You Know... In the last two centuries, six species of birds have become extinct in the United States. The Great Auk, This bird was last seen on US shores in the early 1800's. The Labrador Duck, the last specimen was taken along the long Island coast in 1875. The Carolina Parakeet, the last small flock seen in the wild was in 1904 in Florida and the last captive bird died in 1914. The Passenger Pigeon, once the most abundant bird that ever lived on earth, an estimated 5 billion birds down to one bird Martha who died in the Cincinnati Zoo on September 1, 1914. (Martha was frozen into a block of ice and shipped to the Smithsonian where she is on display), The Heath Hen, the last bird was seen in 1932. The Dusky Seaside Sparrow the last captive bird died in 1987.

In January 2014 the US Fish & Wildlife's official list identified about 50 species as "endangered" in the continental United States, an additional 20 species are endangered in Hawaii

these massively developed landscapes, and we need to know, because so much of the country is only going to become increasingly urbanized. As scientists learn more about how birds navigate through cities, the data could result in designing urban spaces in ways that mitigate danger.

Imagine also that you will be doing some traveling at night, and all you have to help you find your way is the sun, the stars, and your five senses. Amazingly, this is essentially what hundreds of millions of young birds experience when they undertake their first migration south. For adult birds, the task of finding their way between wintering and breeding grounds is slightly less difficult, but no less incredible.

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SILHOUETTES ON THE *Moon* Nighttime Migration

These nocturnal migrants leave their daytime habitats just after dusk and spend the next eight to ten hours flying. Near dawn they descend to another site along their migratory route, and spend the day or next few days feeding and resting until they can continue the journey. Each species employs its own strategy for migration, but all require two important things during their migration - food and rest.

Nocturnal migrants tend to be birds that have long distances to fly and do so in powered flight. At night the atmospheric structure is much more stable. It is cooler and smoother than during the day. The smoothness of the air allows for a straight level course without expending energy correcting and maintaining a course in turbulent air. (Kerlinger, 1995.) Using radar, ceilometers, and other instruments, researchers have determined that birds typically migrate at altitudes ranging from 1,500 to 5,000 feet, but on some nights, altitudes may range from 6,000 and 9,000 feet. The highest altitudes observed range from 15,000 to over 20,000 feet. This may sound surprising, but some species regularly cross mountain ranges above 20,000 feet.

One tried and true method to observe nighttime birds is to use a spotting scope or telescope to spot migrating birds as they pass across the full moon. A magnification of 40x or more gives the best results. The silhouettes of migrant birds up to 2 miles distant or more can be seen as they wing their way through the sky. You will be amazed at the crispness of the silhouettes as birds pass by.

Seed Moths

IT'S THAT TIME OF YEAR

Just a reminder. If you keep your seed stored indoors, it is the time of year that the seed moths tend to hatch out of the seed in larger numbers.

It is best to keep the seed out of the house as you don't need these little pests bothering you.

You can also buy smaller bags of seed or repack bags into smaller bags and freeze them for a couple of days. This doesn't harm the seed but it kills off the seed moth larvae.

BECAUSE YOU



Asked

Q: how do you keep yellow jackets out of the hummingbird feeder?



A: It's late in the season for this question but we did some research and here are a few ways to keep those late season yellow jackets from invading your hummingbird feeders.

1. Make sure there is fresh nectar in the feeders, hornets and yellow jackets are more attracted to a hummingbird feeder with old nectar.
2. If you have yellow on your feeder remove it. Wasps, hornets, and Yellow Jackets are very attracted to the color yellow. Keep in mind that they can also smell the nectar so in time they will return.
3. Moving the hummingbird feeder just a few feet away also works well. The wasps, hornets, and yellow jackets usually are not smart enough to find the new location. If this does not work, take the hummingbird feeder down for a couple of days. Put it up again once you notice the wasps, hornets, and yellow jackets have stopped coming by to look for it.



4. NEVER use cooking oil, menthol cough rubs, petroleum jelly or any deterrent that could get on the feathers or in the hummingbirds! This includes any part of the feeder where the feathers or bill could possibly contact the substance. Use commercial insect traps sparingly (and AWAY from the feeder) so you do not disrupt the insects' place in your backyard ecosystem. Never use pesticide chemicals or sprays anywhere near the feeders. Pesticides are poisons! Even a small amount can be devastating to small birds.



Q: How do I make sure there are no Seed Moths in my birdseed?



A: First the facts: seed moth eggs are laid in the seed when it is still in the field. They will periodically hatch out of the seed. When you see the moths they have already laid eggs again! Don't store large amounts of seed unless you have cold storage for it. Buy what you can use in a month or two. If you have a large freezer, freeze the seed for a couple of days, this will kill the moth eggs. Our seed is delivered weekly, we don't keep seed hanging around the store for months at a time because we try to keep the moth population down. Of course with the amount of seed in the store you will always see a few of them flying around!

Some seed companies put moth inhibitor in their seed our seed company does not. Why? Bugs are not bad for the birds, and pesticides are! Not to mention that all of these chemicals can leach into the soil, streams and rivers causing mutations in frogs, who knows what it can do to us. We feed the birds because we enjoy nature so we don't need to destroy it in the process.

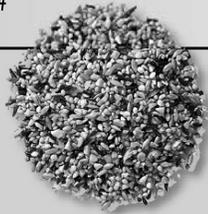
The Bird Store and More Annual Seed Sale

It's that time again!



Preordered seed will be available for pick up from Wednesday, October 15th at noon thru Sunday, October 19th 2014. No coupons or discounts apply to the sale.

				Quantity	Amount
Black Oil Sunflower 25#	regular price \$18.50	SALE	\$14.99		
Black Oil Sunflower 50#	regular price \$34.00		\$28.00		
Smart Parts Sunflower Chips 25#	regular price \$34.00	SALE	\$27.00		
Sunflower Select Chips (hearts) 25#	regular price \$49.83	SALE	\$39.80		
Thistle 25#	regular price \$34.00	SALE	\$27.20		
Safflower 25#	regular price \$34.00	SALE	\$27.20		
Safflower 50#	regular price \$64.00		\$51.00		
Bird Store Blend 20#	regular price \$24.99	SALE	\$20.00		
Bird Store Blend 40#	regular price \$48.00		\$38.40		
Peanut Splits 25#	regular price \$48.00	SALE	\$38.40		
				Subtotal:	
				Sales Tax:	
				Seed order must be prepaid. Total:	



Please call 508-347-2473 or drop off your order at the Bird Store and More no later than SUNDAY, OCTOBER 5TH, 2014.

For your convenience you can also order your seed through our web store www.shop.thebirdstoreandmore.com click on the "Annual Seed Sale" button to order. Seed ordered through the web site must be picked up at the store during the scheduled days; shipping is not available on these items.

ALL SEED ORDERS MUST BE PAID IN ADVANCE.
SEED CAN NOT BE STORED BY US. PLEASE PICK UP YOUR SEED DURING THE SALE DAYS.

Name _____

Credit card number _____

Address _____

Expiration date _____

City _____ state _____ zip _____

3 digit V code _____
(security code on the back of the card)

Phone # _____

Suet was once something we used to feed the birds only in the winter. Suet is technically defined as the hard fat around the kidneys and loins in beef and mutton, but in common usage, most kinds of beef fat are also called suet and can safely be fed to birds. Raw suet from the butcher should still only be used to feed the birds in the colder months due to the fact that the suet can get rancid and grow mold if the temperature rises. When suet gets soft, it can coat belly feathers, a dangerous situation especially in spring and summer when birds are incubating—tiny pores on the birds' eggs may get clogged, preventing the developing embryo from getting enough oxygen.

The year round suet that can be found today is much broader and more beneficial to the birds.

In the spring it helps to meet the increased energy demands of our nesting birds. In the summer suet provides a good substitute for insect-eating birds. In the fall it helps to fatten up the birds for migration and for the colder winter months ahead. In winter suet helps provide a good source of energy to help the birds survive the colder temperatures.

Suet What's It All About?



Suet is made from rendered animal fat, which doesn't sound particularly appetizing, but fat is an important source of calories and is a concentrated form of energy. Fat energy helps the birds sustain activity levels longer between feedings. Suet is now also made with vegetable fat, nuts, berries, and bugs, all of which provide added dietary benefits to the birds.

One thing you do not want to use is bacon drippings. According to The Cornell Lab of Ornithology "bacon drippings are also animal fat, and many birds love the taste. But bacon virtually always has detectable amounts of nitrosamines, carcinogenic compounds formed from some of the preservatives used in bacon. In particular, the very high cooking temperatures used to fry bacon are conducive to nitrosamine formation. So despite the fact that birds love it, bacon and bacon fat pose too much of a risk to the long-term health of birds to warrant using it."

BOTTOM LINE – Suet is a good year round food for the birds when used responsibly. Keep it from getting too soft, or rancid so it does not endanger the birds and your birds will love you!

FREE DELIVERY within 10 miles!



Bird Store Hours:
10:00-6:00 Monday - Saturday
11:00-5:00 Sunday

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