



Migration Obstacle Cards

For use with *Habitat Connections*, Lesson 2: Migration Obstacles

Photo credits for these cards:

ImmortalNinjak (Birds on a wire)

USFW (Migration stopover)

Evgeny Tchegotarev (City lights)

Sarah Joy (Bird and car)

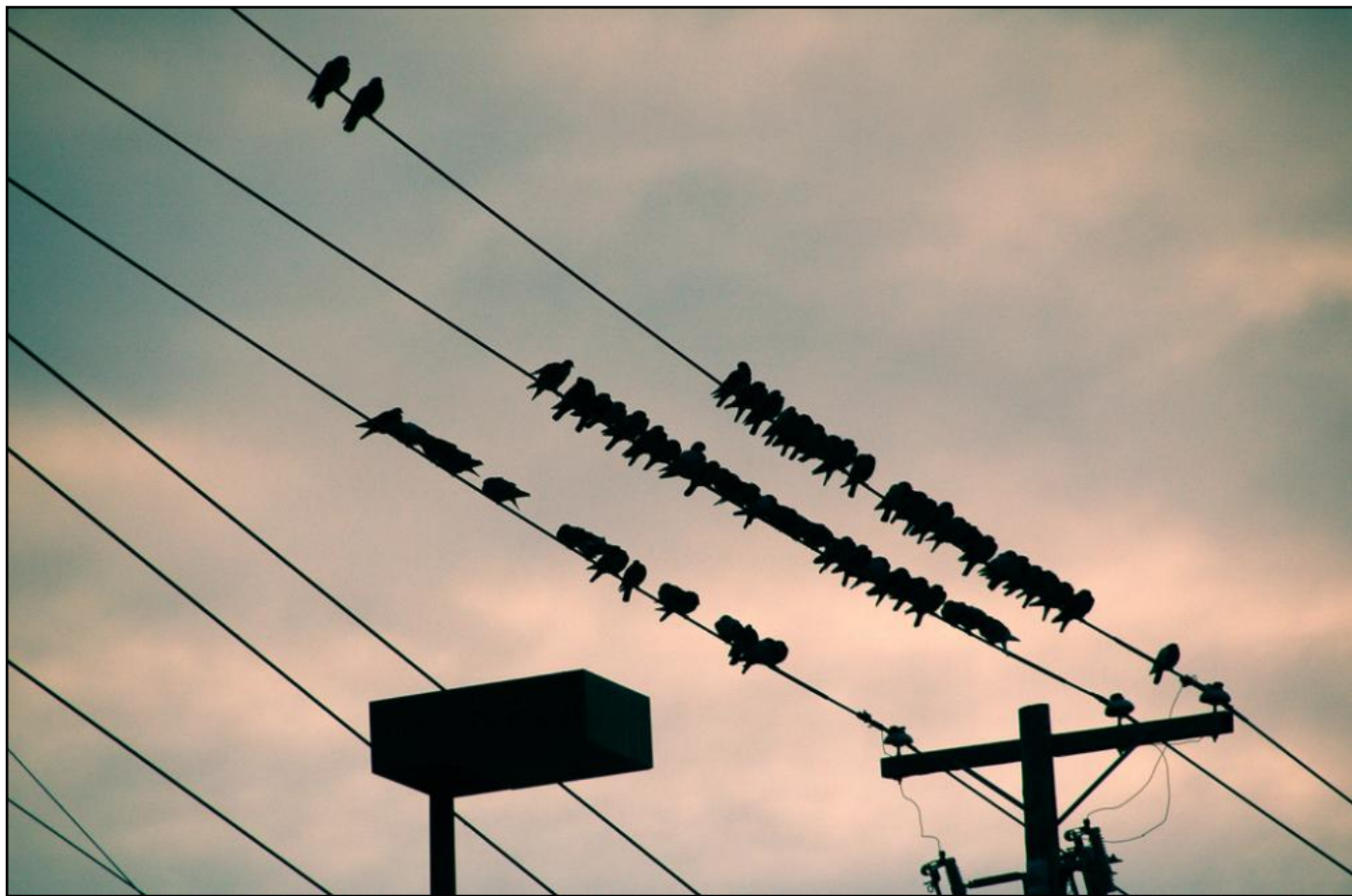
Anthony Abbott (Bird print on a window)

Kevin McGowan (Cat in bird feeder)

Appie Verschoor (Wind turbines)

Harlow Chandler (Soy Field--pesticides)

NASA (Cyclone Catarina—bad weather)



Electric Transmission Line Collisions

While power lines are common perches for birds, larger birds like hawks can be electrocuted when they connect two power lines as they land or take off. Scientists have estimated that high-tension electric transmission lines kill at least 130 million birds every year.

(American Wind Energy Association, Birds & Wind Energy Fact Sheet, 2013)

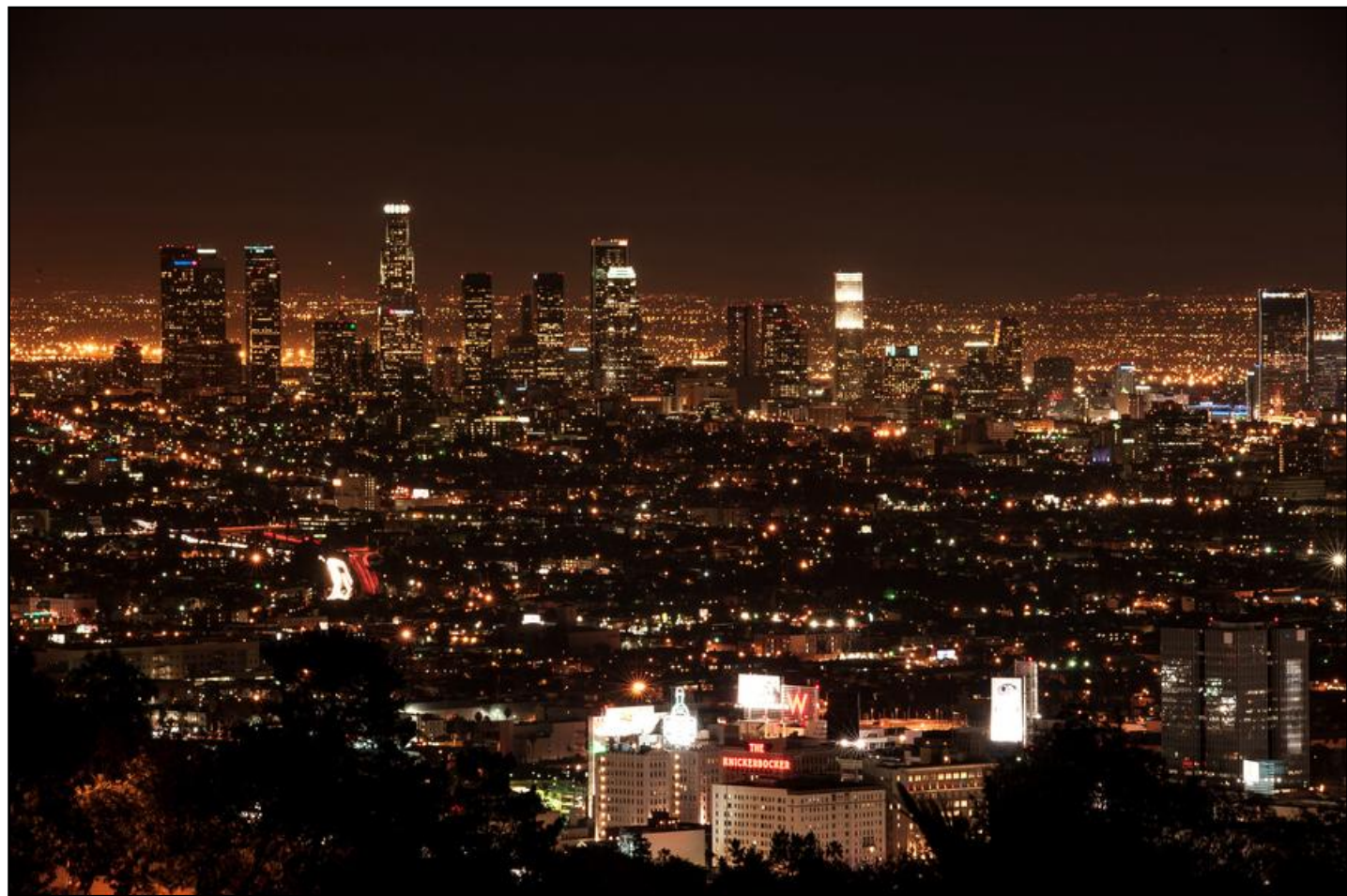


Loss of Stopover Habitat

Many birds rely on stopover habitats for food and shelter along their migration route.

When habitats such as wetlands are cleared or polluted, these birds have

Fewer good places to rest and feed.



Building Lights

Many species of birds migrate at night, using light from the moon, stars, and setting sun to help them navigate. City lights confuse these migrating birds and pull them off-course. They might fly in circles around buildings or even hit the buildings. These collisions are estimated to account for 97 to 976 million bird deaths each year.

(American Wind Energy Association, Birds & Wind Energy Fact Sheet, 2013)



Automobile Collisions

Scientists estimate that 80 million birds are killed in collisions with cars each year.

In the winter, birds are attracted to black highways which are often much warmer than other places. Throughout the year, birds also feed on roadkill or fly across roads as they travel from one place to another.

(American Wind Energy Association, Birds & Wind Energy Fact Sheet, 2013)



Glass Windows

Birds cannot see glass. Instead, they see a reflection of their habitat, so they sometimes fly right into windows. Some birds survive, but many are seriously injured or killed.

Some estimates say windows cause as many as a billion bird deaths each year.

(Bird Conservation Network, Window Collision Fact Sheet, 2012)



Domestic Cats

Feral cats and outdoor pets are a major threat to birds already facing natural predators and other challenges. Estimates of the number of birds killed by cats yearly range from hundreds of millions to billions.



Wind Turbine Strikes

Wind is a green energy source, but where wind farms are located is critical to bird safety. Wind farms placed along migration flyways (migratory routes with high concentrations of birds) can pose high risks because of the large numbers of birds flying through those areas. The American Wind Energy Association estimates that wind turbines kill as many as 200,000 birds each year.

(American Wind Energy Association, Birds & Wind Energy Fact Sheet, 2013)



Pesticides

Scientists at the U.S. Fish and Wildlife Service have estimated that pesticides poison 72 million birds per year. Many birds are affected by eating insects or plants from fields or lawns sprayed with pesticides. Top predators like raptors are affected the most because the pesticides from the prey items they eat accumulate in their bodies.

(U.S. Fish and Wildlife Service, Bird Mortality Fact Sheet, 2002)



Storms and Other Bad Weather

High winds, rain, or snow can be a real challenge for migrating birds.

At best, they have to work harder to fly, or land to wait out the storm. However, these storms can be a matter of life and death when the birds have nowhere to

land, such as while they are flying over oceans.