



SKY MIGRATIONS

DURATION: 15 mins | **DIRECTOR:** Charles Post, Forest Woodward, Max Lowe

Twice a year a river of raptors soars overhead between British Columbia and Argentina on their seasonal migrations. Ecologist Charles Post joins them for part of their journey south through the rugged sagebrush-covered canyons of Nevada's Goshute and New Mexico's Manzano mountains. Workers with Hawkwatch International have been counting, measuring, banding and marveling at Cooper's hawks, red-tailed hawks and golden eagles for the last 30 years. The birds' fierce eyes and powerful wingspans indicate they, as well as the animals they prey on, are doing well. But for conservation to succeed, there must be a global effort. It takes the entire Western Hemisphere to raise a hawk.



STANDARDS

Common Core Anchor Standards for Reading addressed in this lesson:

– **CCSS.ELA-LITERACY.CCRA.R.1 (Key Ideas and Details)**

Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

Common Core Anchor Standards for Writing addressed in this lesson:

– **CCSS.ELA-LITERACY.CCRA.W.1 Text Types and Purposes)**

Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.

– **CCSS.ELA-LITERACY.CCRA.W.7 (Research to Build and Present Knowledge)**

Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

– **CCSS.ELA-LITERACY.CCRA.W.9 (Research to Build and Present Knowledge)**

Draw evidence from literary or informational texts to support analysis, reflection, and research.

TAGS: Raptor, birds, migration, conservation

VOCABULARY: Migrations, stewardship, raptor

FILMMAKER INTERVIEW: CHARLES POST



WHY DID YOU BECOME A FILMMAKER AND HOW DID YOU GET STARTED?

My background is in ecology. I spent nearly a decade working and studying ecosystems in the American West. But after three years of graduate school at UC Berkeley, I realized there was a need for more science communication. My peers and colleagues were creating these amazing projects that missed the attention they deserved. That realization prompted me to leave academia and the sciences to pursue a career in storytelling so that I might help bridge the gap between science, conservation and the general public.

WHEN EDITING THE FILM, WAS THERE ANYTHING YOU WISHED YOU COULD HAVE INCLUDED IN THE FINAL CUT?

The only real “regret” I have with the film is that we didn’t spend more time following the migration. For the little that we did follow, we met so many inspiring humans, learned so much, and experienced so many incredible things. I can only imagine if we had doubled the length of our trip we may have doubled the richness of our experience, and in turn, the film.

WHEN YOU MADE THE FILM, DID YOU HAVE A SPECIFIC AUDIENCE IN MIND?

Going into the film, we had a young audience in mind, a group excited about the outdoors but not too familiar with field work or science.

IS THERE AN ACTION YOU HOPE PEOPLE ARE INSPIRED TO TAKE AFTER SEEING THIS FILM??

We hope our film helps people slow down, observe the natural landscape and ecosystem and consider the role science and conservation plays in protecting and stewarding the landscapes we play in and escape to.



WHAT ARE SOME OF THE CHALLENGES YOU ENCOUNTERED WHILE MAKING THIS FILM?

Our main hurdle was to do the story justice, to capture the essence of the people and organization we had embedded with while celebrating these powerful, curious and unique birds in hand all while injecting our own bit of energy and excitement into the equation.

WHAT'S THE NEXT BIG ADVENTURE OR FILM PROJECT ON THE HORIZON FOR YOU?

I'll be diving into a short documentary on the impact of wild horses on public lands and those ecosystems in the Great Basin. It'll be a film that showcases the ecological impacts through the eyes of scientists and researchers working in wild horse habitats.

WHAT IS ONE PIECE OF ADVICE YOU CAN GIVE STUDENTS THAT YOU WISH SOMEONE HAD SHARED WITH YOU?

Choose a path that scratches the itch of curiosity and leaves you feeling fulfilled. Smile often and don't be afraid to knock on doors and have a conversation rather than sending an email or making a phone call. If you are passionate about something, don't hide it. Find a mentor. They can change your life.

PRE-SCREENING ACTIVITY

Having a base knowledge of migrations and what raptors are is essential to understanding the content of the film. Prior to starting the movie, have students view two websites to better understand some basic concepts within the film.

<https://hawkwatch.org/migration>

Two short paragraphs from Hawkwatch.org that describe the raptor's migration networks and importance of tracking the migrations.

<http://www.hawkmountain.org/raptorpedia/migration-path/page.aspx?id=352>

A map that gives a general idea regarding the distances covered by migrating raptors.

Depending upon time, you could either review this information as a whole group or in smaller groups. Have students aware of the vocabulary terms (migration and raptor) and ask students to come up with definitions for both using the two websites as reference.

DISCUSSION QUESTIONS/CATEGORIES

These discussion questions can be either held as a whole group class discussion, can be responded to as individual writing prompts, or can be addressed in pairs. As the teacher, you decide what will work/not work with the time constraints and your class' interest in the topic.

GENERAL/OPEN PROMPTS

1. If you consider this film an essay, what would you say the filmmakers' thesis is? Were they effective in stating their thesis and supporting with evidence? In what ways could they have made their argument more effective?

EXPLORING SELF

1. In the film, Charles Post states that some of the best moments in his life are his "wildlife moments, maybe moments no one else has seen before." Can you relate to Post's statement? Do you have "wildlife" moments and were they some of the best moments of your life?



EXPLORING THE WORLD

1. The narrator states that “in order for conservation to succeed, there has to be a global undercurrent of stewardship and seeing them [raptors] fly across your sky is just an indication that there is still wilderness.” What does the narrator mean by “global undercurrent of stewardship?” In what ways does your community contribute or not contribute to the stewardship of raptors?

EXPLORING FILMMAKING

1. Why do you think Post, Woodward, and Lowe chose to open the film with the scene and statement that they just caught an eagle? What effect or anticipation does this have on the film?

EXPLORING SOCIAL ISSUES

1. The narrator states that it “truly takes a hemisphere to raise a hawk,” and declares that “it takes a network of stewards to make sure those hawks will be around in 100 years.” What do you think the narrator is attempting to do by making this statement? Does this statement strengthen the film’s argument? Does it give the viewer a sense of responsibility?

SENSE OF WONDER

1. In the opening scene, the narrator states that “looking into an eagle’s eye changes you.” What do you think the narrator means by this? How do you think the narrator has been changed by looking into the eye of an eagle?

ACTIVITY

Work collaboratively to create an eye-catching poster about a raptor to promote conservation.



TIME NEEDED:

Approximately 45 minutes (5-minute instructions, 10-15 research, 10-15 poster completion, 5-minute gallery walk). As a teacher, you know your classroom best, please modify this activity to meet your students’ needs!

MATERIALS NEEDED:

11 x 17 paper, markers/pens/pencils, etc. (student-driven decision), different colored sticky notes (2 colors), and computer for research

DIRECTIONS:

1. Break students up into small groups of 2 or 3 students and direct them to:
<https://hawkwatch.org/learn/factsheets>
2. Have students choose which bird they are going to create a poster for (there are 31 different raptor fact sheets to choose from so make sure students don't have repeats).

- This website (<https://www.audubon.org/news/15-facts-about-raptors>) gives great facts about raptors, so you can turn it into a trivia game.

- The groups of students who answer the questions correctly are allowed to choose which raptor they will be making a poster for first) (Ex: “True or false: Hunting peregrine falcons dive at more than 200 miles per hour”)

3. Give students the following directions:

“Today, your group will be creating an advertisement for the raptor your group has chosen. It is your job to create an eye-catching poster that helps people to understand the importance of your selected raptor. You will have 25-30 minutes to research and create an 11 x 17 poster to advertise the conservation of your raptor. Your poster must include the following: a picture of your raptor, at least two interesting facts about your raptor, and where it migrates.”

List the instructions on the board and adapt where necessary. (i.e. if your students love to draw, have them hand draw the raptor, if your students need more support when it comes to writing, have them list one interesting fact about the raptor, if your students have a hard time working in groups, let them work alone, you know your students' strengths best!

4. Using the fact sheets, students will create a poster in small groups. Once they have created posters that meet the criteria (picture, two interesting facts, and migration in eye-catching format), have students hang posters on the wall.
5. Give each student two different color sticky notes. The two colors are meant to represent two different categories to vote on. You select which categories are going to work for your class. Individually, each student will be responsible for voting for the best poster.
 - Ideas for categories: most interesting facts or best advertisement for a raptor, positive comments or room for improvement, best drawing or best facts listed, worked well as a team or created the best advertisement.
6. To conduct this part of the lesson, have the students take two sticky notes and writing utensil and walk around the room silently to “vote” on the posters for five minutes. You can play some background music and have students rotate through posters while voting.
 - If they choose one poster over another, they must write why on their sticky note and write their name.
7. When music is done, have students return to their seats and ask what they observe about the different sticky notes. The “winning” posters can be put on special display within the classroom.
 - Another option to incentivize the competition is to take a picture of the winning poster and post on Instagram and/or Facebook. HawkWatch International's handle is **@hawkwatch** and don't forget to tag Mountainfilm at **@mountainfilm**.



EXIT TICKET

RECOMMENDED EXTENSIONS:

1. **Watch Planet Earth II, Episode: Cities.** One section of the episode argues that raptors are adaptable to modern environments created by humans, specifically the Peregrine Falcon population in New York City. Compare and contrast this section of the episode to Sky Migrations. Does the information provided by each filmmaker complement or contradict each other?
2. **Build a Nest Box.** The Raptor Institute gives detailed instructions for how to build an American Kestrel Nest Box or Barn Owl Nest Box, which encourages both wildlife populations to come to your backyard. From Raptorinstitute.org, “Not only will a nest box give you hours of viewing pleasure, it is the cheapest form of pest control around.” Visit: <http://raptorinstitute.org/conservation/build-a-nest-box/>

REFERENCES:

- 15 Facts About Raptors. (2016, April 13). Retrieved August 1, 2018, from <https://www.audubon.org/news/15-facts-about-raptors>
- Behind the Scenes: Peregrine Falcons in NYC. (n.d.). Retrieved August 1, 2018, from <http://www.bbcamerica.com/shows/planet-earth-ii/video-extras/season-1/episode-06-cities/behind-the-scenes-peregrine-falcons-in-nyc>
- Build a Nest Box. (n.d.). Retrieved August 1, 2018, from <http://raptorinstitute.org/conservation/build-a-nest-box/>
- LeMaster, J. (2011). Critical reading: deep reading strategies for expository texts. San Diego, CA: AVID.
- Read the Standards. (n.d.). Retrieved August 03, 2017, from <http://www.corestandards.org/read-the-standards/>
- Migration Network. (n.d.). Retrieved August 1, 2018, from <https://hawkwatch.org/migration>
- Migration Path. (n.d.). Retrieved August 1, 2018, from <http://www.hawkmountain.org/raptorpedia/migration-path/page.aspx?id=352>
- Read the Standards. (n.d.). Retrieved July 31, 2018, from <http://www.corestandards.org/read-the-standards/>