



An “En-Lightning” Experience

By Dirk Oden

When I was a teenager, my family had a hair-raising experience—literally. Climbing Uncompahgre Peak, our excitement over the nearness of the summit was stronger than our concern for the increasing clouds. While enjoying the view on top with my sister, I noticed a dark cloud directly over us. I looked at my sister and her hair suddenly stood out in all directions!

I had remembered reading that when you are about to get struck by lightning your hair stands up. I hollered at my sister and warned the rest of my family who had just reached the top. We began a rapid descent trying to quickly reach a sheltered area far below while still maintaining control on the loose talus slope. I felt tingling in my arms. White flashed at the same time that the air exploded. I turned quickly, relieved to see that none of us had been hit. Yet within a few minutes my sister's hair was on end again. Another flash-crash and we were setting records for the hundred boulder dash. It had taken us four hours to reach the summit; within half an hour we were sitting in our vehicle at the trailhead.

Until that day, I had never really given much thought about lightning. We all should, though. About 20% of the nation’s lightning fatalities occur in Colorado each year, and Colorado ranks as the third highest state in per capita lightning fatalities.

What is Lightning?

Lightning is basically a giant spark of static electricity. The main differences between the spark you see when you rub your feet on the carpet and touch an unsuspecting victim on the ear and a tree-shattering bolt are the amount of electricity involved and the distance it travels.

Lightning Myths.

Lightning has fascinated people for thousands of years, and ancient histories often contain imaginative explanations for its causes. Even today, some modern myths about lightning are commonly believed:

- **Lightning never strikes the same place twice.** The Empire State Building gets struck by lightning many times a year. The high peaks surrounding the dunes are, of course, frequent targets as are the dunes themselves. Ever notice all the dead trees on exposed ridges?

(Continued on page 2)



Junior Ranger Day—Saturday, August 4, 9:00am to 1:00pm

The annual Junior Ranger Day, sponsored by the Friends of the Dunes in partnership with the park, offers fun, educational activities for children. Events will be held at the South Ramada in the picnic area. Park admission is free that day. Come and enjoy!

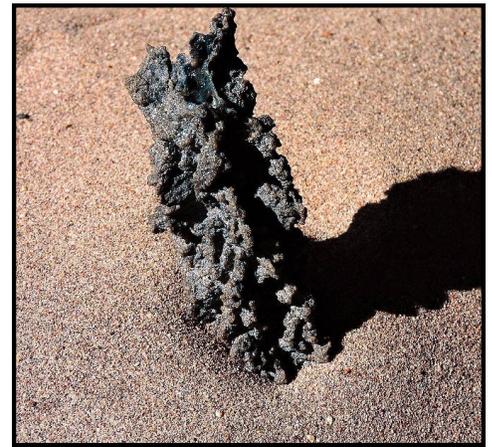
- **Lightning won't strike cars because of the rubber tires.** Lightning travels great distances through the air (often over a mile), so why would a few inches of rubber block its path? Lightning takes the easiest path at the time of the strike. When lightning strikes a car it usually flashes over the metal exterior of the car leaving passengers inside unharmed. However, because the electricity flashes over vehicle, anyone riding in the open bed of a pickup can be killed by lightning!
- **You can get shocked by touching a lightning-struck victim.** A person struck by lightning needs immediate attention. A common effect of lightning is to stop the heart. Strike victims can often be revived if CPR is started right away. The electricity from the strike passed through the victim instantly. There is no danger of shock to anyone trying to give first aid. *Victims of electrical shock in contact with power lines are a completely different matter, however.* Before touching any unconscious victim, survey the scene carefully!

A Benefit of Lightning.

Not only is lightning an awesome sight, but it benefits our environment as well. All plants need nitrogen. Seventy percent of the earth's atmosphere is made up of nitrogen, but it is in a form plants cannot use. When lightning strikes, the heat of the bolt changes nitrogen gas to a form that plants can use, and these nitrates fall to the ground dissolved in rainwater.

Lightning Safety.

The bottom line is this: don't be in a place where lightning might strike when lightning is likely. Remember that lightning tends to strike the tallest object in an area. Don't become that object or a part of it. Particularly dangerous places include open meadows, open water, open parking areas, isolated trees, tall trees, rock outcroppings, the dune field, and (especially) Uncompahgre Peak.



Fulgurite is a tube-shaped rock formed when lightning strikes the sand. The inside is smooth, glass-like, and hollow.

From the Park's Archives



Shriners from the Al Kaly (Shrine spelling for "alkali") Temple perform ceremonial rites on the dunes (1947).

Upcoming Events

- **Saturday, July 28 - Guided Bird Walk** along Mosca Pass Trail with Dr. Tim Armstrong of Adams State University. Time TBD (call park for more information).
- **Saturday, August 4, 9:00am—1:00pm— Junior Ranger Day** (Free Park Admission). Fun and activities for children!
- **Saturday, August 11, 11:00am—3:00pm—Mountain Man Encampment**—Historian Jack Rudder (Visitors Center)
- **Saturday, August 18—Buffalo Soldier Encampment** (Visitors Center 11am—3:pm, amphitheater program at 7pm)

Adopt an Elk to Support the Elk Movement Monitoring Study

You can support this important five-year research study by adopting an elk. There are two levels of adoption:

Co-Adopt An Elk. For a one-time \$50 donation to this project, you (and up to four other donors for the same collared elk) will receive:

- 1) Periodic updates about the data received on your adopted individual elk, including both “day in the life” movement information and “big picture” migration movement.
- 2) Recognition on the Friends of the Dunes website for supporting this project (unless you prefer to remain anonymous).

Adopt An Elk. For a one-time \$250 donation to this project, you will receive:

- 1) Periodic updates about the data received on your exclusively adopted individual elk, including both “day in the life” movement information and “big picture” migration movement.
- 2) The opportunity to name your adopted elk if you wish
- 3) To the extent possible, a photo of your actual elk.
- 4) The opportunity to spend a morning or afternoon with a park biologist in the field learning more about the elk movement study and what has been learned from your elk.
- 5) Recognition on the Friends of the Dunes website for supporting this project (unless you prefer to remain anonymous).

To Adopt an Elk, complete the following form and return it with a check for your donation.

.....
YES! I would like to support the Elk Movement Research Study at Great Sand Dunes National Park and Preserve at the following level:

Co-Adopt An Elk (\$50)

Adopt An Elk (\$250)

Neatly Printed Name _____

Address _____

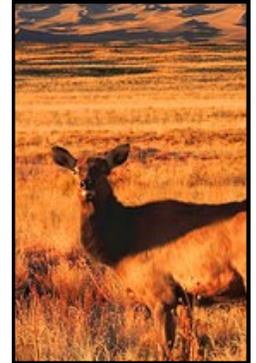
Neatly Printed Email Address _____

____ Check here if you prefer your name NOT be mentioned as a supporting donor on the Friends website

Send this form along with a check for your donation to:

Friends of the Dunes, P.O. Box 1437, Alamosa, CO 81101-1437

Elk photo (top) by Patrick Myers, NPS



Elk collars like this one communicate with GPS satellites and send important elk movement data back to biologists.



Thank you Dennis Lamb and Tim Yanachek for each adopting an elk!

Membership and Contact Information

Come join us in protecting and enjoying
a unique and special place.

I would like to join or renew my membership in Friends of the Dunes
at the following level:

- Friend \$25
- Associate \$50
- Family \$75
- Patron \$100
- Lifetime \$1000

I'd also like to contribute \$_____ to the following:

- Wheelchair Fund
- Student Research Grant Fund
- General Operations Fund

Contact information: Check here if label is correct;
 otherwise, please complete:

Name _____

Street _____ DATE _____

City, State, ZIP _____

Email _____

(Please print clearly enough for someone not familiar with the address to read) 😊

Check here to receive the Hourglass newsletter by email instead of by hard copy through postal mail.

NEW Friends Members receive the following for joining as a

- ⇒ **FRIEND**—Great Sand Dunes pin, triannual newsletter, advanced notices and invitations to special events.
- ⇒ **ASSOCIATE**—Copy of *The Shape of the Wind* by Stephen Trimble.
- ⇒ **FAMILY**—Annual pass to Great Sand Dunes
- ⇒ **PATRON**—All of the above.
- ⇒ **LIFETIME**—All of the above plus a special gift from the Great Sand Dunes bookstore.

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