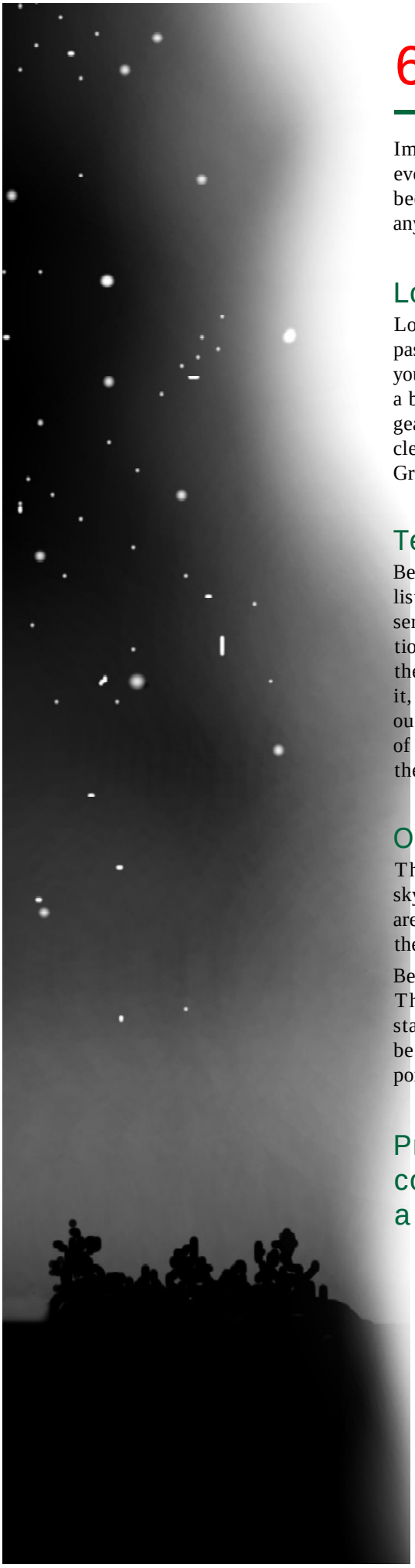


6. Winter Night Sky

Imagine every clear night in the sky as an event to look forward to, especially in winter because more bright stars abound than at any other time of year.

Look waaaay up . . .

Look to the sky, and carry on a legendary pastime. Instead of telling the youngster in your life a bedtime story from the confines of a bed or couch, pull on the warm weather gear, go outside, and while looking up to the clearness of the winter night sky, tell the Greek mythology story about a constellation.

Tell a series of stories

Better than TV, include the whole family to listen and watch the winter night sky mini-series, as the story of a different constellation unfolds in relation to the story you told the last night you were out. Before you know it, the youngster in your life will be bringing out their outer winter wear in anticipation of what will happen in the next chapter of the starry winter night series.

Of time and space

The best time and place to view the night sky is when there are few clouds and in an area where there are few lights to obscure the view.

Begin with the Big Dipper, (also known as The Great Bear or Ursa Major) it's an easy starting point. The other constellations can be found using the Big Dipper as a reference point.

Primary winter sky constellations each with a story:

- Ursa Major (big Dipper)
- Canis Minor Little Dog
- Ursa Minor (little Dipper)
- Canis Major Big Dog
- Polaris (north Star)
- Orion
- Cassiopea
- Lepus Hare
- Perseus
- Columba Dove
- Auriga
- Auriga Charioteer
- Gemini Twins
- Taurus Bull
- Cepheus
- Cetus Whale
- Cygnus
- Pisces Fish
- Pegasus
- Andromeda
- Lyra
- Aquarius Water Bearer
- Draco
- Leo

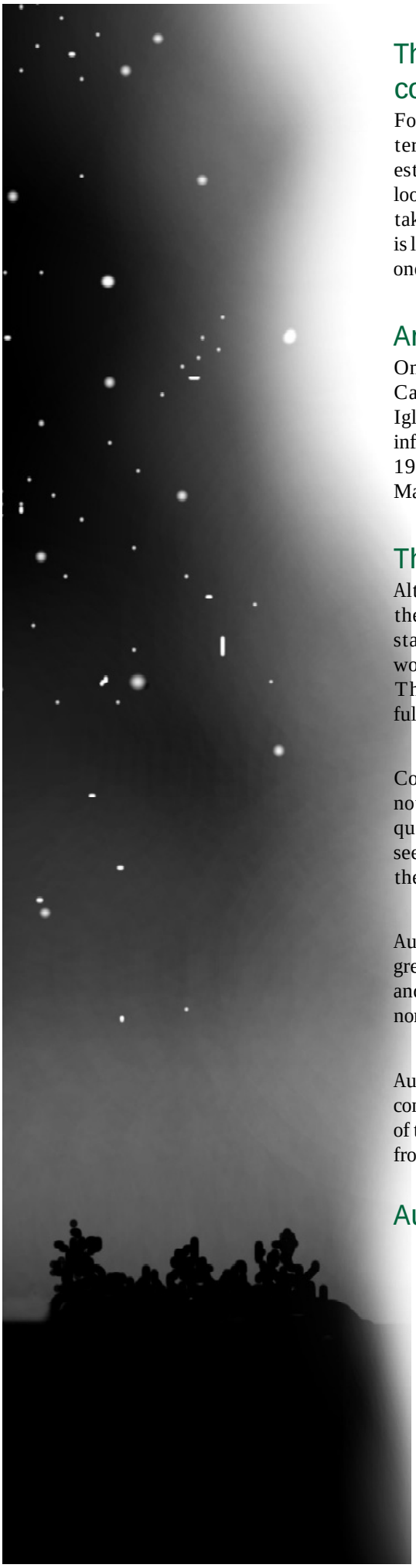
A teaser to get you started

Orion is referred to as the night sky's grandest figure. He is the warrior, a hunter or giant. Because of his warlike position, he is known as the bearer of bad weather. One version of the Greek legend depicts Orion as a vain character and a womanizer. He consistently chases the Pliedes, also known as the Seven sisters. But Gaia, goddess of the earth, puts a stop to him by sending Scorpion (visible in the summer sky) to put an end to him.

To locate constellations and to collect more stories about the winter sky's constellations check out these web sites . . .

- http://walt.stcloudstate.edu/dome/constellns/starlist.html
- http://windows.ivv.nasa.gov/cgi-bin/tour_def/the_universe/constnavi.html
- http://www.dnr.state.wi.us/org/caer/ce/eek/nature/startip.htm
- http://www.dnr.state.wi.us/org/caer/ce/eek/nature/stargazing.htm

The Canadian winter The



The Canadian Winter constellation

For Canadians, Orion is considered the winter constellation. Carrying some the brightest stars, his belt (three bright stars in a row looking to the south facing sky) is unmistakable. The giant orange star, Betalgeuse, is located in Orion ŝ left upper shoulder and one of the brightest stars in the winter sky.

Arctic Lore

On another Canadian winter sky note, the Canadian Eastern Arctic community of Igloolik have their own Inuit star lore. For information refer to the September/October 1998 issue of Sky News: The Canadian Magazine of Astronomy and Stargazing.

The Northern Lights

Although aurora are a common occurrence in the north—as common as the moon and the stars, they are not as predictable. It is no wonder that they are a wonder to behold. This natural phenomenon is far from being fully understood.

Contrary to popular belief, aurora ŝ happen not just in winter; they occur just as frequently in any other season. The reason we see them more often in the winter is because there is more darkness.

Aurora ŝ are linked to the sun ŝ activity. The greater the activity the more sunspots, flares and wild lights we can look forward to in the northern skies.

Auroral activity peaks every 27 days, another connection to the sun, since that is the length of time it takes for the sun to rotate as viewed from the earth.

Aurora facts . . .

- In 1923, a Canadian physicist, Sir John McLennan pinpointed oxygen as the cause of aurora ŝ green light.
- An aurora in the north (aurora borealis) is matched, almost identically, by an aurora in the south (aurora australis).
- In 1622 Galileo was the first to use the term aurora borealis, or "northern dawn".
- The primary colour green is caused by glowing oxygen molecules; the pink colour at the lower edge is created by energized nitrogen; and a blood red colour can be seen at the top of the curtain display which is caused by oxygen under rare circumstances.
- Although there is no scientific proof that aurora ŝ make noise, people claim that they hear a swooshing or crackling noise when aurora ŝ occur. Can you hear them? Let us know . . . info@goforgreen.ca
- The best place to view the aurora borealis is in the north although they do occur in more southernly locations on occasion.

For more on the aurora refer to the January/February 1998 Issue of SkyNews: The Canadian Magazine of Astronomy and Stargazing and/or look at this web site:

www.geo.mtu.edu/weather/aurora