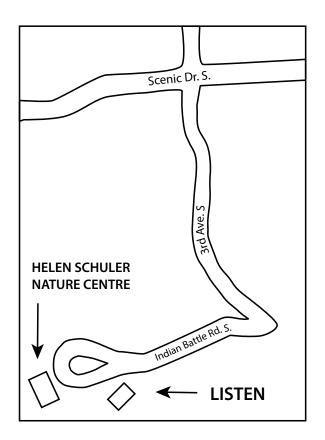
Sound Waves Parabola Focal Point

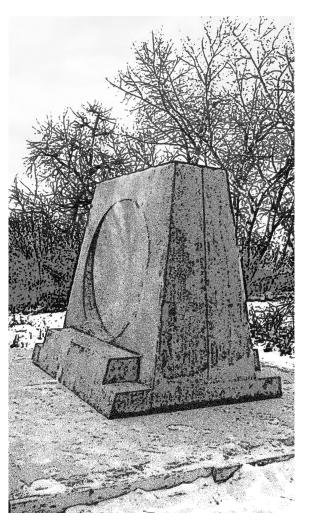






Thanks also to KOOPMAN ARCHITECTURE, INLAND HEIDLBERG CEMENT GROUP, and the LETHBRIDGE ALLIED ARTS COUNCIL.

SUMMER SOUNDS



TERRY BILLINGS

The public artwork, *Listen*, is designed to help visitors enjoy the park's acoustic ecology - the relationship between living beings and their environment, understood through sound.

Listen is a sound mirror. The concave area behind the bench is a parabola that reflects sound to a single point 76 cm. or 30 in. from the top of the bench. As a passive hearing aid, **Listen** does not create sound, but will amplify the sounds entering the parabola for a listener who finds this focus with their ear.

With every visit to *Listen*, the soundscape will likely be different. This might be because different animals, insects and birds are nearby, or because a change in wind or weather has shaped or carried sound differently. Repeated attention to the park's soundscape can enhance appreciation of how sound adds a rich, complex and often beautiful dimension to the entire environment.

This seasonal series of guides offers suggestions to help enhance your appreciation of the soundscape.

LISTEN

SUMMER SOUNDS

The wind is a prominent part of Lethbridge's soundscape many days of the year. The prevailing wind is from the west, mostly from west-southwest. This prevailing wind can carry traffic sound from the Whoop-Up Drive Bridge and make the sound louder than it might be on a calm day or at times when the wind is from a different direction. If you notice more sound from the Highway 3 Bridge, then likely the wind is from the northwest.

If the wind is strong, try listening carefully facing into it, and then turn around and listen facing away. How does the wind sound, depending on how you are facing? Are there other sounds? Where is the sound near or far? Try this in a sheltered space and an open space. The interior shape of a woodwind or brass musical instrument helps to shape the sound, and the same is true, more subtly, of larger spaces. This is why, while filming a movie, crews gather the sound of the locations to fill any gaps between sounds in editing. A different space's air could sound odd. Gaps of total silence seem very odd, as if there is suddenly a vacuum.



The sound that the wind makes in some trees is similar to hands clapping or rain falling, whereas other trees have a more subtle rustling sounds. The sound of wind in grass also makes a rustling sound, but differently from that of trees. On a still day in late summer, another plant sound you may hear close to the Nature Centre parking lot is the popping of caragana seed pods.

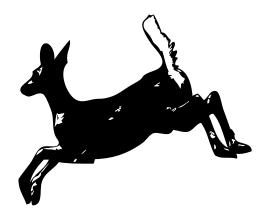


If there is little wind or traffic sound, the sounds of wings can be one way of listening to creatures like birds and insects. A dragonfly taking off from a leafy perch makes a subtle rattling sound.



Bird wings make a variety of sounds from flapping to fluttering to whirring to whistling, depending on the bird and the kind of flight. Flying can also have different rhythms. For example, the intermittent flapping and gliding of a Northern Flicker is very different from the steady beat of a Canadian Goose's flight. If you happen to hear a flock of geese flying overhead, listen to how the sounds of many wings combine, and how this sound combines with the sound of their honking voices.





Rustles and crunching in the woods and undergrowth can tell you that something is nearby. It can be difficult to tell which creature it might be, but sometimes the rhythm and speed can offer clues. The loudness of the sound is less of an indication. A deer can move almost silently when it wants, and a tiny ground squirrel can make a racket if its surroundings are dry enough. It is possible to associate sounds with their makers, but it helps to see them as well, though this isn't always possible.



Insects make various humming or buzzing sound when they fly. Insects like crickets and grasshoppers make chirping sounds called stridulation. Stridulation is made by rubbing a wing or leg "scraper" on a file like structure on a wing.