## Glacier

## Words and Music by Mary Amato

A Bb I'm mythically weary. For years I was cold and alone. C It took me thousands of lifetimes Bb A To build up these layers of ice and snow.

A Bb Then you came to claim me. Ignoring the warning signs C Bb You burned to meet your self-seeking needs A Regardless of mine.

FE7AmI want to love you darling, but I'll only stayFE7AmIf you change your hot-headed ways.

A Bb You can't hide your fever. Your current of love runs above and below. C You know that we'll pay Bb A The longer you stay, the faster I go.

A Bb I fear it's too late. I'm already slipping away C Bb The river of change, it grows underneath A All of my days.

FE7AmI want to love you darling, but I'll only stayFE7AmIf you change your hot-headed ways.

Bb

First it's your heat on my faceCDmE7Then it's the painful embrace that takes me down.Dm C Bb/C/Bb ADm C Bb/C/Bb E7

A Bb My tears are cold. You haven't seen anything yet C Bb If you keep on acting as if I don't matter E7 Am You'll drown in regret. You'll drown in regret.

## THE SCIENCE

Imagine a glacier that is attracted to warmth: a bad idea for a relationship, right? That's the unexpected twist of this song written from the point of view of a glacier that desires warmth and yet knows that climate change will bring about its own demise.

So, what are glaciers and why are they threatened by climate change? A glacier is an enormous, thickened ice mass created from the accumulation of fallen snow. Centuries or millennia old, they form when snow remains in one place long enough to compress into ice beneath its own weight. However, they don't stay frozen in place, like other snow masses. They occur on the slopes of arctic mountains and travel slowly down the mountain, like an extremely slow-flowing river, towards the sea.

Some of the 130,000 glaciers here now have their origins dating back in the last Ice Age, 13,000 years ago, making them seem mythically old, but now glaciers are disappearing. Their ice and snow is either melting or evaporating faster than new snow/ice has been adding on.

Take a picture today of a glacier and put it next to one taken a hundred years ago and you see a river of ice that has thinned out from side to side, like a melting icicle, or that looks like it has retreated against the direction of its own flow. Some glaciers have vanished in the last century. The reason? Most scientists blame the vast disappearance of ice on the burning of fossil fuels, mostly consisting of coal and oil, which sends carbon dioxide into the atmosphere. There, the carbon dioxide gathers and remains, behaving like glass in a greenhouse. It welcomes heat from the sun to come inside but then traps some of it there. The result of an atmosphere bearing ever more carbon dioxide has been a slowly warming planet in which heat does what it always does to ice: melt it. Rather than snow traveling from the top of the mountain to join the glacier, the snowcaps melt, and what would've been a glacier actually develops to be a freeflowing river. The water from this river flows beneath the glaciers, carrying it towards the ocean much more quickly than it would have travelled on its own. When the glacial ice hits the sea, it melts into water.

As atmospheric and ocean temperatures continue to warm, more glacial ice will melt and evaporate. Glaciers will diminish, and the water that their ice becomes, along with water from melting ice sheets like those around Iceland and in the North and South poles, will cause the level of the oceans to rise up enough to flood islands and coastal cities all around the world and influence weather patterns in ways that no one quite can predict.

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