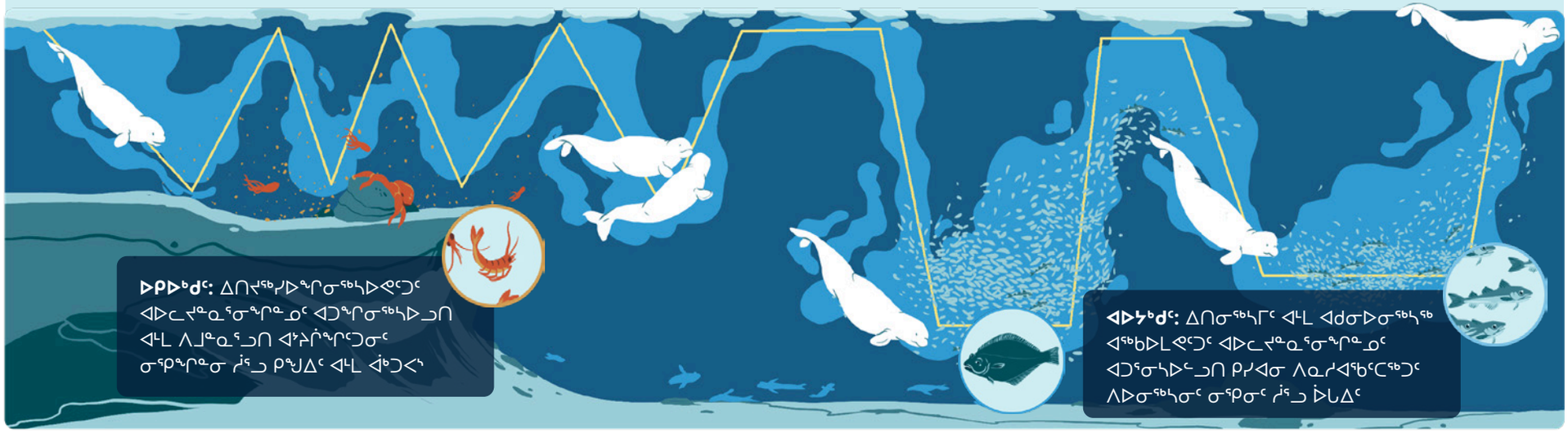

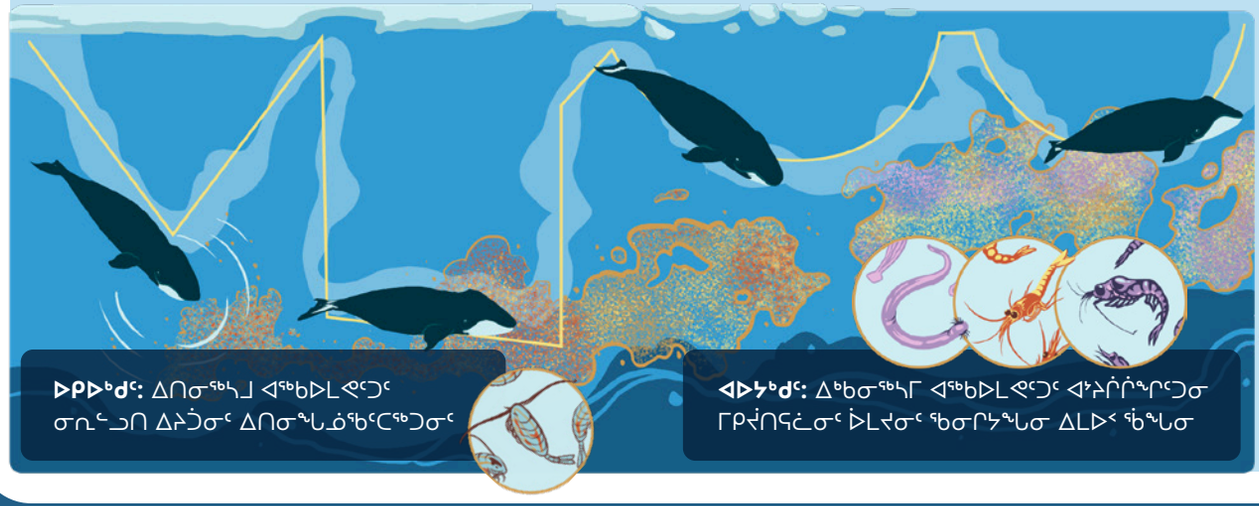

ᐊᖅᑲᐅᒪᕕᒋᓪᓗ: ᐃᓕᓐᓂᐊᕐᓂᖅ ᐱᔾᔪᑎᖃᖅᑐᓂᑦ ᐃᒪᕐᒥᐅᑕᓄᑦ ᐆᒪᔪᓄᑦ ᓇᔪᖃᑦᑕᖅᑕᖏᓐᓂ ᐊᑕᖃᑦᑕᖅᑕᖏᓐᓂ

ᕿᓚᓗᒐᐃᑦ ᐊᒻᒪ ᐊᕐᕖᑦ ᐊᓯᔾᔨᖃᑦᑕᖅᑐᑦ ᓅᖃᑦᑕᕐᓂᖏᑦ ᖃᓄᐃᓕᒋᐊᖅᑐᑎᑦ ᐊᔾᔨᒌᖏᑦᑐᓄᑦ ᓇᔪᖃᑦᑕᖅᑕᖏᓐᓂ ᖃᓄᐃᓐᓂᕆᔭᖏᓐᓂ. ᐊᑐᖃᑦᑕᖅᑐᑦ ᐊᔾᔨᒌᖏᑦᑐᓂ ᐊᖅᑲᐅᒪᓂᕐᒧᑦ ᕿᓂᖅᑐᑎᑦ ᐊᔾᔨᒋᖏᑕᖏᓐᓂ ᖃᓄᐃᑑᓂᖏᓐᓂ ᓂᕿᖏᓐᓂ. ᑖᓐᓇ ᖃᓄᑐᐃᓐᓈᕈᓐᓇᕐᓂᖓ ᑐᑭᖃᖅᑐᖅ ᖃᓄᐃᓕᒋᐊᕈᓐᓇᖅᑐᖅ ᐊᓯᔾᔨᖅᑐᓄᑦ ᓇᔪᖃᑦᑕᖅᑕᖏᓐᓂ ᐊᒻᒪ ᖃᓄᐃᑦᑑᓂᖏᓐᓄᑦ ᓂᕿᖏᓐᓂ ᐊᑐᐃᓐᓇᐅᔪᓂᑦ.

ᐅᑭᐅᒃᑯᑦ: ᐃᑎᔪᖅᓯᐅᖏᓂᖅᓴᐅᕙᑦᑐᑦ
ᐊᐅᓚᔪᓐᓇᕐᓂᖏᓐᓄᑦ ᐊᑐᖏᓂᖅᓴᐅᓗᑎ
ᐊᒻᒪ ᐱᒧᓐᓇᕐᓗᑎ ᐊᔾᔨᒌᖏᑦᑐᓂᑦ
ᓂᕿᖏᓐᓂ ᓲᕐᓗ ᑭᖑᐃᑦ ᐊᒻᒪ ᐋᒃᑐᐸᔅ

ᐊᐅᔭᒃᑯᑦ: ᐃᑎᓂᖅᓴᒥᑦ ᐊᒻᒪ ᐊᑯᓂᐅᓂᖅᓴᖅ
ᐊᖅᑲᐅᒪᕙᑦᑐᑦ ᐊᐅᓚᔪᓐᓇᕐᓂᖏᓐᓄᑦ
ᐊᑐᕐᓂᓴᐅᓪᓗᑎ ᑭᓯᐊᓂ ᐱᓇᓱᐊᖃᑦᑕᖅᑐᑦ
ᐱᐅᓂᖅᓴᓂᑦ ᓂᕿᓂᑦ ᓲᕐᓗ ᐆᒐᐃᑦ

ᐅᑭᐅᒃᑯᑦ: ᐃᑎᓂᖅᓴᒧ ᐊᖅᑲᐅᒪᕙᑦᑐᑦ
ᓂᕆᓪᓗᑎ ᐃᔨᑑᓂᑦ ᐃᑎᓂᖓᓅᖃᑦᑕᖅᑐᓂᑦ

ᐊᐅᔭᒃᑯᑦ: ᐃᒃᑲᓂᖅᓴᒥ ᐊᖅᑲᐅᒪᕙᑦᑐᑦ ᐊᔾᔨᒌᒌᖏᑦᑐᓂ
ᒥᑭᔫᑎᕋᓛᓂᑦ ᐆᒪᔪᓂᑦ ᖃᓂᒋᔭᖓᓂ ᐃᒪᐅᑉ ᖄᖓᓂ

• ᓄᖃᑦᑕᖅᑐᑦ ᐅᖓᓯᑦᑐᒧᑦ
• ᐊᑐᖃᑦᑕᖅᑐᑦ
ᐃᑎᔪᖓᓃᖏᓂᖅᓴᐅᔪᓂᑦ
ᐊᖅᑲᐅᒪᓪᓗᑎ
• ᐊᖅᑲᐅᒪᖃᑦᑕᓂᖅᓴᐅᔪᑦ
ᐊᐅᔭᒃᑯᑦ ᐊᒻᒪ ᐅᑭᐊᔅᓵᒃᑯᑦ
• ᓂᕆᖃᑦᑕᖅᑐᑦ ᑲᑎᓐᖓᔪᓂᑦ
ᒥᑭᔫᑎᕋᓛᓂᑦ ᐆᒪᔪᓂᑦ

ᑲᓇᑕᒥ ᐅᑭᐅᑕᖅᑐᖓᓂ
ᕿᑭᖅᑕᒐᓚᐃᑦ
• ᑕᕝᕙᓂᔅᓴᐃᓐᓈᖃᑦᑕᖅᑐᑦ
ᐊᑕᐅᓯᕐᒥ ᓇᒦᓐᓂᖓᓂ
• ᐃᑎᓂᖅᓴᒧᑦ
ᐊᖅᑲᐅᒪᖃᑦᑕᖅᑐᑦ
• ᐊᔾᔨᒌᖑᕙᑦᑐᑦ ᐊᒥᓲᓂᖏᑦ
ᐊᖅᑲᐅᒪᓂᖏᑦ ᐊᕐᕌᒍ
ᐃᓗᐊᓂᓕᒫᖅ
• ᓂᕆᖃᑦᑕᓂᖅᓴᐅᔪᑦ
ᐅᖅᓱᖃᑦᑎᐊᖅᑐᓂᑦ ᐆᒐᕐᓂᑦ

ᐱᖓᓐᓇᖓᓂ ᓴᓐᓂᕈᑎᐅᑉ
ᐃᒪᖓᓂ

ᐊᕐᕖᑦ ᐊᓯᔾᔨᖃᑦᑕᖅᑕᖏᑦ
ᐊᖅᑲᐅᒪᓂᖏᑦ
ᐊᑐᓕᕈᓐᓇᕐᓗᑎ
ᐊᔾᔨᒌᖏᑦᑐᓂᑦ
ᓇᔪᖅᑕᐅᕙᑦᑐᓂᑦ ᐊᒻᒪ
ᓇᒦᓐᓂᖏᓐᓄᑦ

ᕿᓚᓗᒐᐃᑦ (ᑲᓇᓐᓇᖓᓂ
ᐱᐅᕗᐊᑦ ᐃᒪᖓᓂ ᕿᓚᓗᒐᖏᑦ)

ᐊᕐᕖᑦ (ᑲᓇᓐᓇᖓᓂ
ᑲᓇᑕᒥ−ᐱᖓᓐᓇᖓᓂ

ᐊᑯᑭᑦᑐᑦ ᐊᕐᕕᖏᑦ)

ᕿᓚᓗᒐᐃᑦ ᐊᖅᑲᐅᒪᖃᑦᑕᖅᑐᑦ ᓂᕆᓇᓱᐊᖅᑐᑎ, ᕿᑲᖅᑐᑎ, ᐃᖏᕋᓪᓗᑎᑦ ᐊᓯᐊᓂ ᐊᓯᐊᓄᑦ, ᐊᒻᒪ ᓯᑯᓕᒃᑰᕈᓐᓇᖅᑐᑎᑦ. ᐊᑐᖃᑦᑕᖅᑐᑦ ᐊᒥᓱᓂᑦ ᐊᔾᔨᒌᖏᑦᑐᓂᑦ ᐊᖅᑲᐅᒪᖃᑦᑕᓂᕐᒧᑦ ᑐᓐᖓᓂᖃᖅᑐᑦ ᖃᓄᐃᓘᕐᓂᖏᓐᓄᑦ.

ᐊᕐᕖᑦ ᐊᖅᑲᐅᒪᖃᑦᑕᖅᑐᑦ ᓂᕆᓇᓱᓐᓂᓴᐅᓪᓗᑎ, ᐊᑐᖃᑦᑕᖅᑐᑦ V=ᖃᓄᐃᓕᖓᓂᓕᒻᒥᑦ ᐊᖅᑲᐅᒪᓪᓗᑎ ᕿᓂᖅᑐᑎ ᓂᕿᖏᓐᓂ. ᐊᑐᖃᑦᑕᖅᑐᑦ ᓇᓪᓕᐊᓐᓂᑐᐃᓐᓇᖅ ᐃᑎᔪᒧᑦ, ᑭᑉᐹᕆᑦᑐᒥ ᐊᖅᑲᐅᒪᓂᕐᒧᑦ, U-ᖃᓄᐃᓕᖓᓂᖅᑐᒥ ᐱᓇᓱᐊᖅᑐᑎ ᓂᕆᖃᑦᑕᖅᑕᖏᓐᓂ ᐊᒻᒪ ᓂᕆᓪᓗᑎ.

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