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ᐊᕙᑎᓕᕆᔨᒃᑯᑦ Boulanger et al., 2018

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ᓄᓇᕗᑦ ᒐᕙᒪᖓ
ᐊᕙᑎᓕᕆᔨᒃᑯᑦ
ᐱᓕᕆᔾᔪᑎᓂᑦ ᓇᐃᓈᖅᓯᒪᔪᑦ − ᓈᓴᐅᑖ: 01-2018

ᔮᓐ ᐴᓛᙳ
ᑲᑎᑕᐅᓯᒪᔪᑦ ᓄᓇᖓᓐᓂᑦ ᖃᐅᔨᓴᖅᑎᑦ, ᓂᐅᓪᓴᓐ, ᐱᓯ

ᒥᑦᔅ ᑳᒻᐳ
ᐊᕙᑎᓕᕆᔨᒃᑯᑦ, ᓄᓇᕗᒻᒥ ᐆᒪᔪᓂᒃ ᖃᐅᔨᓴᖅᑎᑦ ᐱᓕᕆᕝᕕᖓ, ᐊᕐᕕᐊᑦ, ᓄᓇᕗᑦ

ᑕᐃᕕᑦ ᓖ
ᐆᒪᔪᓕᕆᔨᒃᑯᑦ ᐊᕙᑎᓕᕆᔨᒃᑯᓪᓗ, ᓄᓇᕗᑦ ᑐᙵᕕᒃᑯᑦ, ᑲᖏᖅᖠᓂᖅ, ᓄᓇᕗᑦ

ᔫᓂ 1, 2018

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ᐊᕙᑎᓕᕆᔨᒃᑯᑦ Boulanger et al., 2018

ᐃᓱᒪᒋᔭᐅᔪᑦ
ᐋᖅᑭᒃᓯᕗᒍᑦ ᒫᓐᓇ ᐅᓄᕐᓂᕆᓕᖅᑕᖏᓐᓂᒃ ᖃᓄᐃᓕᕙᓪᓕᐊᓂᖏᓐᓂᒡᓗ ᓇᓚᐅᖅᑖᖅᑕᐅᔪᓂᑦ ᐱᔪᓐᓇᕈᒪᓪᓗᒋᑦ ᐊᕐᓇᓪᓗᐃᑦ ᖃᔅᓯᐅᓂᖏᓐᓂᒃ ᖃᒪᓂᕐᔪᐊᖅ ᑐᒃᑐᖏᓐᓂᒃ ᓇᐹᖅᑐᖃᙱᑦᑐᒥᑦ ᐅᓄᖅᓯᒋᐊᒃᑲᓐᓂᕐᓗᒋᓪᓗ ᓇᓚᐅᑦᑖᖅᑕᐅᔪᑦ ᐅᑭᐊᒃᓵᖅ ᖃᓄᐃᓕᖓᓂᕆᔭᖏᑦ ᖃᐅᔨᓴᖅᑕᐅᔾᔪᑎᑦ ᐊᑐᕐᓗᒋᑦ ᐊᑕᖏᖅᖢᒋᑦ ᓇᓚᐅᑦᑖᖅᑕᐅᔪᑦ. ᔫᓂ 2008-ᒥᑦ, ᓄᓇᕗᑦ ᒐᕙᒪᒃᑯᓐᓄᑦ ᓇᓚᐅᑦᑖᖅᑕᐅᓚᐅᖅᑐᑦ 344,078-ᖑᓇᓱᒋᔭᐅᓚᐅᖅᐳᑦ (95−ᐳᓴᓐ CI=56,870; CV=8.1) ᐃᓐᓇᐃᑦ ᐊᒻᒪ ᑎᕿᑐᕋᐃᑦ. ᑐᒡᓕᐊᓂ ᓈᓴᐃᓕᕐᒪᑕ ᖃᖓᑕᓪᓗᑎᒃ ᔫᓂ 2014-ᒥᑦ ᓇᓚᐅᑦᑖᖅᑕᐅᔪᑦ 264,718-ᖑᓇᓱᒋᔭᐅᓚᐅᖅᐳᑦ (95−ᐳᓴᓐ CI=44,084; CV=8.3) ᐃᓐᓇᐃᑦ ᐊᒻᒪ ᑎᕿᑐᕋᐃᑦ. ᐅᓄᕈᓐᓃᖅᐹᓪᓕᖅᖢᑎᒃ ᔫᓂ 2008 ᐊᒻᒪ ᔫᓂ 2014 ᐊᑯᓐᓂᖓᓂ ᐅᔾᔨᕐᓇᖅᑐᒥᒃ (DF=71.3;T=-2.23; P=0.029) ᓇᓗᓇᕈᓐᓃᖅᖢᓂ 23−ᐳᓴᓂᒃ ᐅᓄᕈᓐᓃᖅᐹᓪᓕᕐᓂᖏᓐᓂᒃ ᐅᑭᐅᑦ ᐊᕐᕕᓂᓖᑦ ᐊᓂᒍᖅᑐᓂᑦ ᓇᓚᐅᑦᑖᖅᑕᐅᔪᑦ ᐊᑯᓐᓂᖏᓐᓂ. ᖃᖓᑦᑎᐊᓕᓴᑦ ᐅᓄᕐᓂᖏᓐᓂᒃ ᓇᓚᐅᑦᑖᖅᑕᐅᔪᑦ, ᖃᖓᑕᓪᓗᑎᒃ ᔫᓂ 2017−ᒥ, 288,244−ᖑᓇᓱᒋᔭᐅᓚᐅᖅᐳᑦ (95-ᐳᓴᓐ CI=46,123; CV=7.8) ᐃᓐᓇᐃᑦ ᐊᒻᒪ ᑎᕿᑐᕋᐃᑦ. ᑲᑎᖦᖢᒋᑦ ᑐᒃᑐᐃᑦ ᐅᓄᕐᓂᖏᑦ ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᑦ ᓄᕐᕆᐅᕐᕕᖏᓐᓂᒃ, ᑭᓯᐊᓂ 262,272−ᖑᓇᓱᒋᔭᐅᓚᐅᖅᖢᑎᒃ (SE=16, 746) ᔫᓂ 2014-ᒥ ᐊᒻᒪ 252,060-ᖑᓇᓱᒋᔭᐅᓪᓗᑎᒃ (SE=15,493) ᔫᓂ 2017-ᒥ. ᓈᒻᒪᒃᓯᒋᐊᖅᓯᒪᔪᑦ ᑐᑭᓕᐊᖅᑐᒥᑦ ᑲᑎᙵᙱᑦᑐᓂᑦ ᐊᕐᓇᓪᓗᐃᑦ ᓇᓚᐅᑦᑖᖅᑕᐅᔪᑦ 2008-ᒥᑦ, 2014-ᒥᑦ ᐊᒻᒪ 2017-ᒥᑦ ᓇᓗᓇᕈᓐᓃᖅᐳᖅ ᐅᔾᔨᕐᓇᙱᑦᑐᒥᑦ ᐅᓄᕈᓐᓃᖅᐸᓪᓕᐊᓂᖏᓐᓂᒃ ᐊᕐᕌᒍᑕᒫ λ ᓇᓚᐅᑦᑖᖅᑕᐅᔪᑦ 0.98 (CI=0.94-1.01) ᓇᓗᓇᕈᓐᓃᖅᐳᖅ ᐊᑯᓂᐅᓂᖅᓴᖅ ᐅᓄᕈᓐᓃᖅᐸᓪᓕᐊᓂᖏᓐᓂᒃ 2−ᐳᓴᓐᒥᑦ (CI=-6−ᐳᓴᓐᒥᑦ +1−ᐳᓴᓐᒧᑦ)

ᐊᕐᕌᒍᑕᒫ. ᐆᒃᑐᕋᐅᑎᒥᑦ ᐋᖅᑭᒃᓯᒪᔪᒥᑦ ᐊᑐᓚᐅᖅᐳᑦ ᕿᒥᕐᕈᒃᑲᓐᓂᕋᓱᒃᖢᑎᒃ ᖃᓄᐃᓕᕙᓪᓕᐊᔾᔪᑕᐅᑐᐃᓐᓇᕆᐊᓕᖕᓂᒃ. ᓇᑭᑐᐃᓐᓇᖅ ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᑦ ᓴᖅᑭᑎᑕᐅᓚᐅᖅᐳᑦ ᐊᑯᓐᓂᖓᓂ ᓈᓴᖅᑕᐅᔪᑦ 2008-ᒥ, 2014-ᒥ ᐊᒻᒪ 2017-ᒥ ᓈᓴᖅᑕᐅᓯᒪᔪᑦ ᑐᙵᕕᒋᓪᓗᒋᑦ. ᑲᑎᙵᙱᑦᑐᓂᒃ ᑐᑭᓕᐊᖅᑐᓂᑦ ᐋᖅᑭᒃᓯᓕᕆᓪᓗᑎᒃ ᓇᑭᑐᐃᓐᓇᖅ ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᓂᑦ 1000−ᓄᑦ ᐊᑐᖅᑕᐅᒃᑲᓐᓂᖅᑐᓄᑦ. ᓇᓃᓐᓂᖏᑦ ᐊᓯᐊᓄᐊᖅᐸᓪᓕᐊᔪᑦ ᓇᓚᐅᑦᑖᕈᑕᐅᔪᑦ ᓇᓗᓇᐃᖅᓯᕗᑦ ᐅᓄᕐᓂᖅᓴᐃᑦ ᐊᓯᐊᓄᐊᖅᐸᓪᓕᐊᓇᓱᒋᔭᐅᓪᓗᑎᒃ ᐊᔾᔨᒌᙱᓐᓂᕋᐃᓂᖏᓐᓂᒃ (λ<1). ᐆᒪ λ ᑐᑭᖓ ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᓂᑦ ᑕᒪᑐᒧᖓ 0.975−ᖑᕗᖅ (ᐳᓴᒋᔭᖓ 95% CI=0.95-1.00) ᐊᔾᔨᐸᓗᒋᓪᓗᓂᐅᒃ ᐱᔭᐅᓚᐅᖅᑐᓂᑦ ᑲᑎᙵᙱᑦᑐᓂᑦ ᖃᐅᔨᓴᖅᑕᐅᔪᓂᑦ.

ᑭᖑᓂᖔᑦᑎᓐᓂ ᓄᕐᕆᐅᕐᕖᑦ ᐊᔾᔨᓕᐅᖅᓯᒪᔪᑦ ᖃᐅᔨᓴᕈᑕᐅᓂᑯᑦ ᒪᓕᓚᐅᖅᐳᑦ ᐊᕐᓇᓪᓗᐃᑦ ᐃᕐᓂᐅᖅᑐᑦ ᖃᐅᔨᓴᕈᑎᖏᓐᓂᒃ ᓇᓚᐅᑦᑖᕋᓱᒃᖢᑎᒃ ᖃᐅᔨᒪᓇᓱᒃᖢᑎᒡᓗ ᓄᓇᐃᓐᓇᕐᒥ ᑕᒡᔪᐊᖅᐸᒃᑐᑦ ᐅᓄᕐᓂᖏᓐᓂᒃ ᓇᐹᖅᑐᖃᙱᑦᑐᒥᑦ ᑐᒃᑑᖃᑎᒃᑲᓐᓂᖏᑦ ᓲᕐᓗ ᖃᒪᓂᕐᔪᐊᖅ ᑐᒃᑑᖃᑎᒃᑲᓐᓂᖏᑦ. ᖃᐅᔨᓴᕈᑎᖏᑦ ᑐᙵᕕᒋᔭᐅᔪᓐᓇᖅᑐᑦ ᐃᕐᓂᐅᖅᐸᒃᑐᑦ ᖃᓄᐃᓕᖓᓂᖏᑦ ᓇᓗᓇᐃᖅᓯᓚᐅᖅᐳᑦ ᐊᕐᕌᒎᑉ ᐊᑯᓐᓂᖓᓂ ᐊᔾᔨᒌᙱᓐᓂᖏᓐᓂᒃ ᖃᒪᓂᕐᔪᐊᖅ ᑐᒃᑑᖃᑎᒃᑲᓐᓂᖏᑦ ᓇᓚᐅᑦᑖᖅᑕᐅᓯᒪᔪᑦ ᒥᒃᖠᒋᐊᕈᑕᐅᔪᓐᓇᖅᖢᓂ ᑕᒪᓐᓇ ᐱᔾᔪᑎᒋᓪᓗᒍ ᑕᒻᒪᖅᓯᒪᙱᓐᓂᖓ ᐊᒻᒪ ᐋᖅᑭᑦᑎᐊᖅᓯᒪᓂᖓ. ᐊᕐᕌᒍᑕᒫ ᓄᕐᕆᐅᕐᕕᒋᔭᐅᓪᓗᐊᑕᖅᐸᒃᑐᑦ ᐊᑐᖅᑕᐅᖃᑦᑕᖅᖢᑎᒃ ᐊᕐᓇᓪᓗᖏᓐᓄᑦ ᑕᑎᒋᔭᒃᓴᐅᓂᖅᓴᐅᕗᑦ ᒦᑕᒃᑯᑦ,

ᑭᖑᓂᖓᓂ ᖃᐅᔨᓴᖅᑕᐅᓚᐅᖅᑐᓂᑦ ᖃᒪᓂᕐᔪᐊᖅ ᑐᒃᑐᒃᑲᓐᓂᖏᓐᓂᒃ ᓇᓗᓇᐃᖅᓯᓚᐅᖅᐳᑦ ᐃᓚᒋᔭᐅᓪᓚᕆᖕᓂᖏᓐᓂᒃ ᐊᕐᓇᓪᓗᐃᑦ, ᐃᕐᓂᐅᕐᕕᖏᑦ ᖃᓄᐃᓕᖓᒐᓗᐊᖅᐸᑕ, ᓄᕐᕆᐅᕐᕕᓪᓗᐊᑕᕐᓂᑦ.