Date reviewed: 2017-12-03

Overall rating

Excellent

Review

The Douglas Lab was one of the earliest adopters of Jetstream. We have worked closely with them and feel that they utilize Jetstream resources very efficiently. We recommend full award.

* Resource

Suggested award

Comments

* **IU/TACC Storage (Jetstream Storage)**

1,000.00 GB

(none)

* **IU/TACC (Jetstream)**

738,000.00 SUs

(none)

Date reviewed: 2017-11-27

Overall rating

Very Good

Review

This proposal describes research requiring a large number of software packages that is well-suited for the Jetstream resource. Code performance is described in detail. The research plan is well-written, and the resources requested are well-justified. The only issue is that they seem to have forgotten to request storage. They should request and justify a reasonable amount of storage. Recommend full allocation.

* Resource

Suggested award

Comments

* **IU/TACC Storage (Jetstream Storage)**

1,000.00 GB

(none)

* **IU/TACC (Jetstream)**

738,000.00 SUs

(none)

Date reviewed: 2017-11-24

Overall rating

Excellent

Review

Harnessing cloud computing and genomics to facilitate adaptive species conservation of non-model organisms This request will fuel vast amounts of ongoing research, in six distinct areas, involving several collaborations, and supporting many future PhDs. 1) Clarify taxonomy. 2) Clarify biodiversity units. 3) Disease spread control. 4) Migratory fish habit assay fueled sustainable economic development. 5) Species diversification in the Ozarks. 6) Invasive species adaptive evolution. The cumulatiuve aim is to advance the field of conservation genetics, encourage adoption of cloud computing, develop software that uses established methodologies to handle big data and scalable environments, foster new govenrment and academniuc collaborations, and support the next generation of conservation scientists. The storage requirement seems a little low to me. This may be the most well thought out XSEDE XRAS request I have ever laid eyes on. The scaling study is especially good, and should be pulled out to be used as an exemplar for new PIs about to create requests. It represents the highest end of a set of scaling studies done right. The methodology is sound, and well described. The research plan is sound, and well described. The scaling study is amazing! Could somebody who is not me please take a look at the storage request. This can only be a typo, or an oversight, or a misreading of the units. I have a suggestion for the PI. For the MCMC software you parallelized, did you consider leaving the original application unchanged, except for adding the capability for a number of runs to be started at once, each with a guaranteed unique starting state, and some way to name the output files uniquely. Then you could run the problem many times, simultaneously, but each run would have far fewer steps than when there was only one MCMC. You would have to throw away the burn-in for each of the smaller runs, hopefully automatically, with some sort of clever perl script, but the wallclock time would scale nearly linearly. As long as you are sure to collect a sufficient number of independent samples, the quality of your result should be close enough to the single long run.

Methodology

Sound and well described.

Research plan

Sound and well described.

Resource Use

Simply amazing.

* Resource

Suggested award

Comments

* **IU/TACC Storage (Jetstream Storage)**

1,000.00 GB

(none)

* **IU/TACC (Jetstream)**

738,000.00 SUs

(none)