**G. Other Direct Costs.**

**G1.** We have requested $70,000 over three years to create an extensive database (**Mantle**) to hold the massive amount of data that this project will generate (see data management plan), including funds for the equipment and personnel to manage, develop, and maintain it. The funds will be used to develop an open access, relational and spatial, web accessible database (**Mantle**) that is enabled to link to R, Genbank, TreeBASE, and Morphbank. Software and database development, management, and support will rely on Amazon Web (cloud) Services and GitHub for information management and sharing between project collaborators and with the greater research community.

We have also budgeted for a laptop computer for the postdoctoral fellow in Y1 ($1,200).

**G2.** We have budgeted $5,400 for 4 publications. We plan to submit two publications in Y2 and Y3 respectively ($2,700 per year). The costs are based on the current rates for the average open-access publication of $1,350.

**G3.** No consultancy fees will be paid.

**G4. Software:** We will use a spatial relational database management system to store the data: molecular (e.g., sequences), biodiversity (e.g., species data), and samples (e.g., blood). Based on our previous experience we will use the open source software for database development (i.e.,PostgreSQL, JSON, Meteor, JavaScript, Python). EHA’s platform (**Mantle**) is in continuous development, follows international standards and can be easily adopted by other users. R, QGIS, GRASS GIS, and Mantle will be use to analyze the data and produce figures. Molecular analyses will be performed using the software Mesquite and R when necessary. Any additional software needed for this project will be open source. We budgeted $1,050 p.a. for computer software licenses and services, including ArcGIS, Mathematica, and similar softwares. (Total of $6,000 p.a.).

**G5 Subawards:**

There will be two subawards, Columbia University and Universidad Nacional Autonoma De Mexico. Budget and justification are given following EcoHealth Alliance’s budget (see below).