Pathology sampling request 2013

Project Title: Pathology Specimen Voucher

General Description and Justification (500 words max): \* Please provide a succinct (500 words maximum) description and justification for your proposed project or collection. Please be sure to detail the goals of the project, how the data or specimens will be used, and why it is important for this project to take place at this time (opposed to during future surveys, other available research platforms, etc.).

Parasites and diseases can have considerable ecological and economic impacts on commercially important fish stocks potentially affecting natural mortality, product recovery, and quality of end products. With varying environmental and climate conditions, different diseases may become more or less significant in host populations and related industries. Frequently diseases and parasites are overlooked unless they present product processing issues or significant host mortalities. When such events occur, accurate anomaly identification is important for developing an action plan. Identification and response can be delayed, however, when verbal descriptions are vague, a photo reference is not available and sample preservation is not possible from remote locations.

Development of an inventory of diseases and parasites endemic to the eastern Bering Sea would enable better communication with other researchers, industry and quality control specialists concerned with the health of Alaskan marine resources. To develop such an inventory we will be surveying various diseases and vouchering related anomalies in the eastern Bering Sea, especially those affecting commercially important fish and crab species. For each anomaly, we will take photos, histological and molecular samples.

The proposed project supports the following AFSC research priorities:

1. Monitor and assess fish, crab and marine mammal populations, fisheries, and marine ecosystems and the associated communities which rely on these resources
2. Improve or expand fish, crab, and marine mammal stock assessments and biological and socioeconomic data collections

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| 1. Understand ecological interactions within and between species |

**BIOLOGICAL SPECIMEN COLLECTIONS**

Detailed collection procedures \* Provide a detailed description of collection procedures including the use of any special equipment and forms. Be as specific as possible and include the desired sampling location(s). If your protocol is graphical and/or cannot be described in text, e-mail the file, including your project title, to RACE.Surveycollections@noaa.gov. For accepted projects, the applicant will be asked to provide an updated full draft of the protocols for inclusion in the At-Sea Operations Manual and a ‘cheat sheet’ for deck operations along with an example of any special data forms.If e-mailing a file, please reference the title of your project in the filename and list below in the provided box.

Sampling for this project is opportunistic and should be completed as time permits (Legs 1 & 2). Up to 3 specimens will be selected from a haul and can be any host species from any location.

The only criterion for specimen collection is the presence of a gross visual anomaly. For each specimen (fish or invertebrate) record the specimen number, host species, sex, length (if appropriate), haul, and include a brief description of the anomaly. Take images of the anomaly at various magnifications and from multiple perspectives, for at least one image include a ruler and label with specimen number and haul number. Using the provided dissection kit, excise multiple pieces of the anomaly and preserve in both 100% ethanol and 10% formalin. Alternatively, if the host is small, remove a small portion to preserve in 100% ethanol and fix the whole organism in 10% formalin. Label all samples with the specimen number.



**The following questions on this page are for metadata purposes only; they are not a substitute for the information that you provide in your collection procedures above. Information requested in these questions should be covered in your collection procedures.**

**Geographic Region of Collection**

Can your collection be distributed throughout the entire survey area? If not and the sampling area is more restricted than the general survey terms of Gulf of Alaska or Eastern Bering Sea Shelf then please provide bounding coordinates and name of region (if known) in the fields provided below.

EBS

Place keywords: Example: Bristol Bay, Kodiak, Shumagin,Yakutat 

Northern Boundary Latitude - decimal degrees 

Eastern Boundary Longitude - decimal degrees 

Western Boundary Longitude - decimal degrees 

Southern Boundary Latitude - decimal degrees 

Fish, Crab or Invertebrate? \* For storage, presevation, and shipping planning purposes, please categorize your collection as either fish, crab or invertebrate.

* fish
* crab
* invertebrates
* various combinations
* Other: 

Species To Be Collected \* List species by scientific name 

Any affected individuals, especially commercially important species

Estimated time: In general, how much time does it take to set up, collect, record, and preserve each sample ? 

15 – 20 minutes

Sampling Design \* Please select a sampling method that best describes your project. DO NOT SUBSAMPLE = collect every one that comes up in the net; SUBSAMPLE RANDOMLY = the specimens do not need to meet ANY set criteria and therefore will be collected at random across the collection area; SUBSAMPLE SELECTIVELY = Collect only those specimens that meet the criteria set by you in the next question. SUBSAMPLE RANDOM STRATIFIED = specimens will be collected randomly from each of the strata you designate in the next question.

* Do not subsample
* subsample randomly
* subsample selectively
* subsample random stratified
* Other: 

SELECTIVE AND RANDOMLY STRATIFIED SUBSAMPLES ONLY: Specify The Criteria For Choosing Specimens Examples: selective criteria could be specific size ranges, photogenic, specific depths, etc; random stratified could be specimens collected by sex/size/area; 

Target specimens by gross visual anomalies

Target Quantity How many specimens do you want collected ? 

If the requested amount or frequency of specimens is not achieved, will the request still be useful?

* yes
* no

Specimen Type \* The typical specimen types to be collected on the surveys are listed below. Please select the type that best describes your collection. If none meet your collection's description, select 'Other' and provide your own.

* otoliths
* dorsal spine
* whole stomach
* stomach scan
* fin clip
* muscle tissue
* blood smear
* pathological tissue
* testes
* ovaries
* RACE voucher (photo + whole animal preserved + inclusion into NMFS/AFSC database) AFSC EMPLOYEES ONLY
* whole animal collection
* Other: 

Do you require individual specimen-level data to be collected? yes = each specimen sample will be given a unique specimen number.

* yes
* no

If you answered YES to the question above, please select or enter any additional morphometrics that are required by your project.

* length
* weight
* Other: 

Length, sex

Do you need to be able to link your project to haul data? \* If you need haul data (e.g. latitude and longitude, depth, temperature, etc) for each of your specimens, it is mandatory that the CruiseNumber, VesselNumber, and Haul numbers be recorded every time we collect your samples; any forms provided by you must contain those fields. Copies of haul data will be e-mailed to the the requestor when survey data are finalized after the end of the field season (usually by October of the same calendar year)

* no - I have no need to link my collection with haul data
* yes - please link my collection with haul data

Supplies provided by the requestor \* List all remaining supplies and equipment needed for your project or collection that you will be providing

Dissection kit (scalpels, blades, forceps), specimen labels, camera, plastic bags, tissue cassettes, 100% ethanol, 10% formalin, sharps containers, datasheets and shipping materials

Chemical Hygiene \* Select or type in all chemicals and hazardous materials in your project. Please e-mail MSDS's for all chemicals other than formaldehyde, ethanol, and glycerol/thymol to RACE.Surveycollections@noaa.gov. Special haz mats will not be allowed. They must conform to those that we are already using.FAILURE to disclose chemicals and hazardous materials will terminate your project.

ADF&G Fish Resource Permit CF-10-038