TEXAS A&M UNIVERSITY CORPUS CHRISTI

Institutional Animal Care and Use Committee

Minutes for July 16, 2021

Call to Order

The Texas A&M University-Corpus Christi Institutional Animal Care and Use Committee (IACUC) met on July 16, 2021, via WebEx. A quorum was confirmed, and the meeting was called to order on July 16, 2021, at 1:01 pm with the following members present.

Total Number of Members Present in Voting Capacity: 7 # required for a quorum: 6

Meeting Attendance

Meeting Chair:

Chair name	Voting Status	Membership	Affiliation	Scientific	Arrive late	Left Early	WebEx
Felix Omoruyi	Voting	Full	Affiliated	Scientific	N/A	N/A	WebEx

Members Present:

Member name	Voting Status	Membership	Affiliation	Scientific	Arrive late	Left Early	WebEx
John Scarpa	Voting	Full	Affiliated	Scientific	N/A	N/A	WebEx
Jean Sparks	Voting	Full	Affiliated	Scientific	N/A	N/A	WebEx
Eric Christensen	Voting	Full	Affiliated	Non-Scientific	N/A	N/A	WebEx
Paul Silva	Voting	Full	Affiliated	Scientific	N/A	N/A	WebEx
Nathan Galvin	Voting	Alternate, Coons	Affiliated	Scientific	N/A	N/A	WebEx
Kesley Banks	Voting	Alternate, Curtis	Affiliated	Scientific	Re-entered at 1:41 pm Re-entered at 1:51 pm	Exited at 1:26 pm Exited at 1:46 pm	WebEx
Angelica Chapa	Non-Voting	Alternate, Sparks/ Omoruyi	Affiliated	Scientific	N/A	N/A	WebEx
Frauke Seemann	Non-Voting	Alternate, Scarpa/Curtis /Silva	Affiliated	Scientific	Re-entered at 1:57 pm	Exited at 1:55 pm	WebEx

Staff and Guest Present:

Name	Job Title	Teleconference
Rebecca Ballard	Director, Research Compliance	WebEx
Linda Villarreal	Program Manager	WebEx

I. Conflict of Interest

Members are reminded of their obligation to disclose any conflict of interest related to any of the items on today's agenda. The chair called for any disclosures of conflict of interest. Conflicts were declared and are noted in the

minutes on the relevant item.

II. Minutes

Minutes from June 11, 2021Judd were reviewed. Minor typos were discussed and edited. The corrections made were “iris” to “iRIS” and “IBR” to “IRB.” The Chair invited additional comments, questions, and/or concerns. Having none, the motion to approve as amended was made, seconded, and carried.

Vote yes:	7	Recused:	0
Vote no:	0	Excused:	0
Abstain:	0		

III. New business

The Committee reviewed new business items.

Staff and member update: Director updated the committee regarding the staffing plan. The IACUC/IBC coordinator position is now available in Islander jobs. Members are asked to share with anyone who may be a good candidate. Members were informed of the interview process and asked to participate in a doodle poll and complete a confidentiality agreement to participate in the member interview session with final candidates.

Software update: Director provided an update on the progress of implementing iRIS. The IRB held its first meeting in iRIS. Things are reported as going well. IACUC/IBC implementation is being pushed back based on developer availability for partitioning the system for other system members to get their IRB module. A late 2021 timeline is more realistic.

Educational: An article from the United States Department of Agriculture’s (USDA) Animal and Plant Health Inspection Services (APHS) is proposing to amend the Animal Welfare Act (AWA) regulations to implement a requirement for contingency plans for the handling of animals during emergencies. This implementation would lift a stay on a December 2012 rule that requires regulated facilities to develop contingency plans and train their employees on implementing those plans during an emergency.

I. New Studies

IACUC #:	**TAMU-CC-IACUC-2021-06-017**
Principal Investigator:	Greg Stunz
Conflict of Interest:	Judd Curtis and Kesley Banks
Primary Reviewer:	Frauke Seemann and Paul Silva
Protocol Title:	Fish Community Surveys and Collection
Species:	Serranidae sp. Groupers, and Sea Basses; Balistidae sp. Triggerfish; Lutjanidae sp. Snappers; Carangidae sp. Jacks, Pompanos, Jack Mackerels, Runners, and Scads; Scombridae sp. Mackerels, and Tunas; Sciaenidae sp. Drums; Rachycentron canadum, Cobia; Coryphaena hippurus, Dolphinfish; Sphyraena Barracuda, Great Barracuda; Megalops atlanticus, Atlantic Tarpon; Elasmobranchs sp. Sharks and Rays; Paralichthys lethostigma, Southern Flounder
Protocol Type:	Animal Research Protocol
Study Objectives:	The overall goal of this project is to evaluate the fish community structure associated with artificial and natural reefs offshore and inshore of South Texas waters. We plan to monitor fish abundance and community structure on these reefs located offshore from Port O'Connor to Port Mansfield, Texas. We will do this using a variety of techniques

including: SCUBA diver visual surveys, ROV visual surveys, hook and line, fish trap, spearfishing, and vertical long lines collection.

Lay Summary:

Hook and Line collection: Single line angler collection methods are generally used to target specific species of fish. These fish are usually caught and retained as live specimens (placed immediately into an oxygenated holding tank), or tagged with various methods and released. For these reasons, special care is taken to avoid capture of non-target species and to avoid injuring captured fish. Fish are handled as quickly and as little as possible. In addition to live collection and tagging, we also sometimes remove small pieces of fin tissue from live fish to obtain DNA for sequencing and other types of molecular studies.

Vertical long line gear: For characterizing reef fish use of offshore habitats (natural or artificial reefs), vertical long lines may be used. Multiple species of reef fish will be sampled, although circle hook size and bait size will select for targeted fish. Lines will be reeled in after only a few minutes (approximately 5 minute soak time) at the target depth. Once onboard, fish will be handled as quickly and as little as possible. Fish that are in good physical condition will be identified, measured, tagged with external dart tags (very small plastic tags) and returned to the water as quickly as possible. Select specimens will be collected and used for age, growth, and biological studies.

Fish trap collection: Smaller size fish species not catchable via other sampling methods will be captured using fish traps. Fish traps measuring 0.97 m long, 0.67 m wide, and 0.64 m high will be used to collect juvenile Red Snapper and other reef fish species inhabiting nearshore artificial reef sites. Funnel mouth size for each trap will measure 175 x 115 mm, with smaller mouth openings biased toward the collection of smaller red snapper. During an individual sampling event, up to 9 traps baited with Atlantic mackerel will be deployed on the survey site for two hours. After the 2-hr soak time, traps will be retrieved. Once onboard, fish will be handled as quickly and as little as possible. Specimens will be collected (numbers not to exceed our allowable take from permits) to be used for age, growth, and biological studies.

ROV and Scuba Visual Surveys: Visual surveys using ROV and scuba will be conducted to determine the abundance and species diversity that exists on artificial reefs. Scuba protocols are conducted with approval from the Dive Safety Officer for each trip. ROV surveys are conducted from the surface on-deck of research vessels. These surveys are typically used at deeper sites beyond the limits of scuba surveys in accordance with university protocols.

Spearfishing: In some instances, spearfishing techniques using scuba will be deployed to target certain species that have low catchability using other described methods (e.g., lionfish, triggerfish). This technique is highly selective and minimizes bycatch of other species.

Euthanasia: Fish must be sacrificed in order to collect tissue and/or other biological samples to obtain life history information of fish species (otoliths, testes, ovaries, liver, heart, brain, and muscle). In the case of sacrifice, fish are euthanized in accordance with the American Fisheries Society Guidelines for the Use of Fishes in Research (2014), and AVMA Guidelines for the Euthanasia of Animals (2020). Euthanasia will occur via rapid chilling (hypothermic shock) in an ice slurry in a cooler. While this procedure is typically not recommended by AVMA (2020) and AFS (2014) research

guidelines for laboratory euthanasia methods (attached), these documents state that exceptions may be granted due to the logistically complex nature of offshore fieldwork. Further explanation is provided in the "Deviations from the Guide" section.

CITI:	Expired - Stunz Expiring in July - Hall, Topping	OHP:	Expiring in July - Hall Expiring in August – Stunz

Open Meeting: Dr. Banks in attendance.

Use of euthanasia/anesthesia not clear: It is unclear if they are using anesthesia or not. AVMA/ASF guidelines require the use of anesthesia. But these fish are being released back into the ocean and use of chemicals cannot be used. The protocol recommends chilling. This is a normal procedure for field work and acceptable as a deviation to AVMA/ASF guidelines. PI requested to separate anesthesia versus euthanasia. The study team responded that anesthesia is not used because the fish is going back into the food chain. Any fish that is be euthanized will have the tissue removed. The euthanasia method is by cold slurry.

The study team responded that yes, the fin clips will be taken of live animals. Also, no muscle cores will be taken during the fin clips. The muscle core process is only done on shark species. There are sharks on this protocol. When the muscle core samples is done on the sharks they do not use anesthesia.

Vertical long line gear: Use of this line has a shown baro trauma. PI needs to provide clarification about how to prevent the risk of baro trauma. The study team responded that they do vent. The will include an explanation to that process.

Training/OHP expired: Need to update.

Numbers unclear: Number of maximum fish sampling numbers are not consistent. Seems to be a similar process. Would like to distinguish which species will be subject to which sampling method (long line, traps, etc.). How many are actually tagged? Only some are sampled for tissues and some tagged and released. How many out of total numbers will be for fin clips. The study numbers should be based on prior studies and the team should provide some justification of the numbers expected.

The wildlife permit is only for NTE sampling. This wildlife permit does not reflect a permit for sampling. NTE means Not to Exceed. Generally, this is a sampling permit.

Barracuda is listed on the protocol but not on the permit. Baracuda is not a managed species and does not require a permit so they are not present.

Numbers and species are similar to the other Stunz protocol. How are the protocols connected, if at all? Is the same permit being used for these protocols? Need to verify if these studies are relying on the same permit and maximum numbers. When more than one protocol is being used for multiple studies, then each protocol can not use the maximum number because they will exceed the permit allotment.

Closed Meeting: Dr. Banks exited at 1:26 pm.

The committee reviewed the stipulation from the discussions. No further issues were noted.

The Chair invited additional comments, questions, and/or concerns. Having none, the motion to approve with stipulations with a review period of one year to be reviewed by the chair/vice chair was made, seconded, and carried.

Stipulations include:

1. Clarify which techniques are being using for which species and how many numbers for each group.
2. Separation of details on anesthesia versus euthanasia. Add a statement to clarify that it is not anesthesia.
3. Training/OHP expired: Need to update.
4. Vertical long line gear: The use of this line has shown barotrauma. Needs clarification about how to prevent the risk of barotrauma.
5. Numbers and species are the same as other Stunz protocols. How are the protocols connected, if at all? Permit maximum numbers are being used on other Stunz protocols. Detail how many fish are being used per species per technique.
6. Maximum number and permit: When more than one protocol is being used for multiple studies, then each protocol can not be the max number because they will exceed the permit allotment.

Vote yes:	6	Recused:	1, Banks
Vote no:	0	Excused:	0
Abstain:	0		

II. Amendment

IACUC #:	**TAMU-CC-IACUC-2020-04-001**
Principal Investigator:	Greg Stunz
Conflict of Interest:	Judd Curtis and Kesley Banks
Primary Reviewers:	Felix Omoruyi and Eric Christensen
Project Title:	Tagging Methods for Marine Fishes
Amendment Type:	Change Funding, Add/Delete Species
Amendment Justification:	Shark species need to be added to this protocol for tagging studies. Rhizoprionodon terraenovae Carcharhinidae limbatus Carcharhinus leucas Sphyrna tiburo Galeocerdo cuvier Isurus oxyrinchus Sphyraenidae sp. Carcharhinidae sp. Galeocerdo cuvier Sphyrnidae sp. Carcharhinidae sp.

CITI:	Expired, Stunz Expiring in July - Hall, Topping	OHP:	Expiring in July - Hall Expiring in August – Stunz

Discussion: Amendment just adds the shark species. Three species are present that are not found in the associated wildlife permit.

Rhizopriodon terraenovae is not present in the permit but in the protocol.

Carcharhinus leucas is in the permit with the specific species but the protocol includes Carcharhinus sp. more generally. Please be more specific in the protocol to match the permit to include both genus species versus in the protocol only stating genus sp. There may be no permit needed.

Open meeting: Dr. Banks re-enters at 1:41 pm.

Banks was readmitted to the meeting to ask whether missing shark species are required to be listed on the permit. Atlantic shark and Sphyma tiburo are off-shore species. No state or NOAA permits are required because they are do not require a permit for these two species.

The species where there is just a genus and species represent an incidental catch. In this case, they would follow the permit and not exceed the numbers approved as incidental catch. Incidental catches they would not know the species. So where they can specify, they can but in a protocol like this for incidental catches they would not know the species.

Closed Meeting: Dr. Banks exited at 1:46 pm.

The Chair invited additional comments, questions, and/or concerns. Having none, the motion to approve with stipulations was made, seconded, and carried. Stipulations to be reviewed by chair/vice chair.

Stipulations include:

1. Specify in the protocol those species that are off-shore catches not requiring state permits.
2. Be more specific in the protocol to match the permit to include both genus species versus the protocol only stating genus sp. For new species, indicate numbers for each species.
3. Maximum number and permit: When more than one protocol is being used for multiple studies, then each protocol can not be the maximum number because they will exceed the permit allotment.

Vote yes:	6	Recused:	1, Banks
Vote no:	0	Excused:	0
Abstain:	0		

IACUC #:	**TAMU-CC-IACUC-2020-03-19**
Principal Investigator:	Frauke Seemann
Conflict of Interest:	Frauke Seemann
Primary Reviewers:	Felix Omoruyi and Eric Christensen
Project Title:	Addition of husbandry strains
Amendment Type:	Add/Delete Species
Amendment Justification:	Additional strains are needed for immunotoxicology research 1) HdrR-III (IB178) 30-individuals 2) HNI-II (B176) 30-individuals 3) cab-Tg (rag1-egfp) (TG848) 60-individuals
Protocol Summary:	The objective of this animal use protocol is to establish a fish breeding set-up for the Japanese medaka strain (CAB strain, freshwater) and the marine medaka strain, to provide researchers at TAMU-CC and beyond with embryos, larvae, juveniles and adult fish for their projects. TAMU-CC will be the only US facility to maintain the marine medaka fish and providing unique access to the transgenic line, making it a unique hub of supply for the US research community.

CITI verified: Yes OHP verified: Yes

Dr. Banks reenters at 1:51 pm.

Open meeting: Dr. Seeman present at 1:51 pm.

Discussion: Number is 30 individuals. How was 30 arrived at? The original protocol indicated 60 individuals. This is in preparation for NIH proposal to house this Medaka strain for subjects available in the US for future experiments. This is different than transgenic strain (3rd strain mentioned). Another amendment is expected for the rDNA1 strain.

These are the minimum numbers to maintain 1 tank strains. The minimal number is based on what? Based on experienced and what is minimal required needed to maintain the line within the space currently allotted.

Closed Meeting: Dr. Seeman exited at 1:55 pm.

Concern with numbers was resolved with Dr. Seeman's explanation and justification. No further issues were noted.

The Chair invited additional comments, questions, and/or concerns. Having none, the motion to approve was made, seconded, and carried.

Vote yes:	6	Recused:	1, Seemann
Vote no:	0	Excused:	0
Abstain:	0		

Dr. Seeman reenters at 1:57 pm

III. Continuing Review

IACUC Number:	**17-19**
Principal Investigator:	James Hogan
Conflict of Interest:	None
Primary Reviewers:	Banks and Chapa
Project Title:	Genomic Tools for Determining Abundance and Distribution of Menidia clarkhubbsi: Phase 1.
Protocol Type:	Animal Research Protocol
Protocol Summary:	We propose to develop and implement a genomic tool for the identification of the critically imperiled Menidia clarkhubbsi.
Protocol CR Update:	Project is ongoing. Adverse Events reported? No Alternatives to Animal Use? No Alternatives to Potentially Painful Procedures? No Not Unnecessarily Duplicative? Yes

CITI verified: Yes OHP verified: Yes

Discussion: No advese events reported. They are still within the number limits of the permit. The permit is good until 2023. This is important since the project was set to end last year, but still within permit limits. Training/OHP verified.

Member reported Dr. Hogan is leaving the university. ORC will reach out to the study team to get an amendment to replace with a new PI.

The Chair invited additional comments, questions, and/or concerns. Having none, the motion to approve with a review period of one year was made, seconded, and carried.

Vote yes:	7	Recused:	0
Vote no:	0	Excused:	0
Abstain:	0		

IACUC Number: **TAMU-CC-IACUC-2020-07-007**
Principal Investigator: Dara Orbach
Conflict of Interest: None
Primary Reviewers: Sparks and Costa
Project Title: Biomechanics of the dolphin penis during simulated copulation
Protocol Type: Animal Research Protocol
Protocol Summary: -Film dolphins voluntarily ejaculating into a biomimetic vagina
-Determine where and how the penis contacts landmarks in the biomimetic vagina
-Determine the mechanical force of dolphin ejaculation
Protocol CR Update: Project is ongoing.
Adverse Events reported? No
Alternatives to Animal Use? No

Alternatives to Potentially Painful Procedures? No
Not Unnecessarily Duplicative? Yes

CITI verified: Yes OHP verified: Yes

Discussion: Project not started waiting on project and graduate student. The graduate student will start in the fall. Nothing has changed since the last review.

The Chair invited additional comments, questions, and/or concerns. Having none, the motion to approve with a review period of one year was made, seconded, and carried.

Vote yes:	7	Recused:	0
Vote no:	0	Excused:	0
Abstain:	0		

IV. Semi-Annual Inspections

TAMU-CC IACUC Labs
On June 16, 2021, the following IACUC members conducted a remote Semi-Annual Inspection of on-campus animals: Jerry Underbrink (AV), Angelica Chapa, Michelle Costa, Michael Garcia, Larry Lloyd, John Scarpa, and Jean Sparks. The on-campus location inspected include:

Location	Species	IACUC #	PI
Tidal Hall 314M	Fish - Flounder and Seatrout	22-18	Geist
Tidal Hall 314M	Fish - Flounder and Seatrout	09-19	Geist
Tidal Hall 114G	Zebrafish	20-18	Xu
Tidal Hall 114G	Fish – Japanese Medaka	03-19	Seemann
Tidal Hall 114G	Fish – Japanese Medaka	23-19	Seemann
Tidal Hall 114G	Fish – Japanese Medaka	26-19	Seemann
Tidal Hall 114G	Fish – Japanese Medaka	2020-10-013	Seemann
Tidal Hall 114G	Marine medaka	2021-04-009	Seemann

NRC 1018	Reptiles – Turtles	2020-09-009	Baxter
Islander Green Team garden	Fish – Japanese Medaka	23-19	Seemann

Committee reviewed the inspection report; deficiency table and proposed corrective actions.

Tidal Hall 314M	Fish - Flounder and Seatrout	22-18	Geist
Tidal Hall 314M	Fish - Flounder and Seatrout	09-19	Geist

No fish were currently housed at the time of inspection. The door was unlocked and the lab unoccupied. His lab was missing vet contact information and most recent approval letters. Water jugs are not labeled on the lids and sides.

Members reviewed the corrective actions proposed and no edits were required.

Tidal Hall 114G	Zebrafish	20-18	Xu

Log changes were recommended to include year, am/pm. The vet included questions about OSHA labels. EHS clarified that as long as they are not transferring the material out of the lab then OSHA labels are not required. If they are moving the items outside the lab, for example, taking them out to autoclave, then they need the label. EHS clarified that when working within the lab, it just needs to be clearly labeled on the lids and sides.

NRC 1018	Reptiles – Turtles	2020-09-009	Baxter

No animals are currently being housed. Findings indicate clutter is still present from other non-IACUC protocol use. There is still a box of expired food items. EHS indicated fridge, incubators and other equipment to be moved are still present.

The Chair invited additional comments, questions, and/or concerns. Having none, the motion to approve the inspection report and corrective actions was made, seconded, and carried.

Vote yes:	7	Recused:	0
Vote no:	0	Excused:	0
Abstain:	0		

Closed meeting: Dr. Seemann exited at 2:11 pm.

Tidal Hall 114G	Fish – Japanese Medaka	03-19	Seemann
Tidal Hall 114G	Fish – Japanese Medaka	23-19	Seemann
Tidal Hall 114G	Fish – Japanese Medaka	26-19	Seemann
Tidal Hall 114G	Fish – Japanese Medaka	2020-10-013	Seemann
Tidal Hall 114G	Marine medaka	2021-04-009	Seemann

Question about mortality rate in the logs is within the protocol acceptable range of 10% was discussed at inspection. Committee reviewed the protocol and inspection report. Request add mortality rate to the protocol via amendment.

Islander Green Team garden	Fish – Japanese Medaka	23-19	Seemann

The Chair invited additional comments, questions, and/or concerns. Having none, the motion to approve the inspection report and corrective actions was made, seconded, and carried.

Vote yes:	6	Recused:	1, Seemann
Vote no:	0	Excused:	0
Abstain:	0		

V. Other

The next meeting is scheduled for August 27, 2021, from 10 am to 12 pm.

The meeting was adjourned at 2:21 pm.