

Institutional Animal Care and Use Committee

Minutes for March 11, 2022

Call to Order

The Institutional Animal Care and Use Committee (IACUC) of Texas A&M University-Corpus Christi met on March 11, 2022, via Zoom. Quorum was confirmed and the meeting was called to order on at 1:02 pm with the following members present.

Total Number of Members Present in Voting Capacity: 10

required for quorum: 6

Meeting Attendance

Meeting Chair:

<u>Chair name</u>	<u>Voting Status</u>	<u>Membership</u>	<u>Affiliation</u>	<u>Scientific</u>	<u>Arrive Late</u>	<u>Left Early</u>	<u>Teleconference</u>
Felix Omoruyi	Voting	Full	Affiliated	Scientific	N/A	N/A	Zoom

Members Present:

<u>Member name</u>	<u>Voting Status</u>	<u>Membership</u>	<u>Affiliation</u>	<u>Scientific</u>	<u>Arrive late</u>	<u>Left Early</u>	<u>Teleconference</u>
Frauke Seemann	Voting	Vice-chair Full	Affiliated	Scientific	N/A	1:30 pm	Zoom
Kesley Banks	Voting	Full	Affiliated	Scientific	N/A	N/A	Zoom
Eric Christensen	Voting	Full	Affiliated	Non-Scientific	N/A	N/A	Zoom
Michael Garcia	Voting	Full	Affiliated	Scientific	N/A	N/A	Zoom
Cecelia Gonzales	Voting	Full	Unaffiliated	Non-Scientific	1:03 pm	1:45 pm	Zoom
Shawn McCracken	Voting	Full	Affiliated	Scientific	N/A	N/A	Zoom
Dara Orbach	Voting	Full	Affiliated	Scientific	N/A	N/A	Zoom
Jean Sparks	Voting	Full	Affiliated	Scientific	N/A	N/A	Zoom
Shayna Whitaker	Voting	Full/Vet	Affiliated	Scientific	N/A	N/A	Zoom
Daniel Coffey	Non-Voting	Alternate, Orbach/Banks	Affiliated	Scientific	N/A	N/A	Zoom
Nathan Galvan	Non-Voting	Alternate, Garcia	Affiliated	Scientific	N/A	N/A	Zoom
Larry Lloyd	Non-Voting	Alternate, Banks	Affiliated	Scientific	N/A	N/A	Zoom
John Scarpa	Voting	Alternate, Seemann during Seemann absence	Affiliated	Scientific	N/A	N/A	Zoom

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Paula Baker	Non-Voting	Alternate/ Vet Whitaker	Affiliated	Scientific	N/A	N/A	Zoom
Carrie Ullmer	Non-Voting	Alternate/ Vet Whitaker	Affiliated	Scientific	N/A	N/A	Zoom

Staff and Guest Present:

<u>Name</u>	<u>Job Title</u>	<u>Teleconference</u>
John Scarpa	IACUC & IBC Coordinator	Zoom
Rebecca Ballard	Director, Research Compliance	Zoom
Dale Gawlik, Ph.D.	Professor, HRI Endowed Chair for Conservation and Biodiversity	Zoom

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 relevant items.

II. Minutes

Minutes from February 18, 2022, meeting were reviewed. The Chair invited additional comments, questions, and/or concerns. Having none, the motion to approve was made, seconded, and carried.

Vote yes: 7	Recused: 0
Vote no: 0	Excused: 1 (Gonzales)
Abstain: 2	

III. New business

The Committee reviewed new business items.

Education:

- 1) OLAW Conversations - Improving Enrichment and Handling Practices for Laboratory Fish, 24 Feb 2022, 12:30 – 2:30PM CST. If attended, please send IACUC your meeting certificate or notice. Will post slides in meeting folder (March) if or when they become available.
- 2) OLAW Conversations - Low-Stress Handling for Mice and Supportive Care for Laboratory Animals, 3 March 2022, 12:30 – 2:30PM CST. If attended, please send IACUC your meeting certificate or notice. Will post slides in meeting folder (March) if or when they become available.
- 3) OLAW webinar – 21st Century Cures Act, 10 March 2022, Noon – 1 PM CST. If attended, please send IACUC your meeting certificate or notice. Slides posted in meeting folder (March).
- 4) USDA - Meeting the Requirements of the Animal Welfare Act, May 11, 2022. Free. Register by April 10, 2022, at <https://www.eventbrite.com/e/meeting-the-requirements-of-the-animal-welfare-act-may-2022-tickets-163060908567>
- 5) SCAW, NIH, IACUC Training Workshop - September 16, 2021, <https://www.scaw.com/iacuc-training-workshops.html>, \$399/person at Bethesda, MD.

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TPWD asked to report as a taxonomic group, rather than species by species. The protocol typically asks for species but as you go species by species this number would exceed 50, which became unwieldy in REDCap system. Biodiversity protocols are a bit different and with TPWD's recommendations the protocol was revised with taxonomic groups. We will get a species breakdown at annual review of showing what was actually sampled and observed.

Seemann reentered at 1:14 pm.

A previous TAMU-CC IACUC protocol with camera traps was noted as not needing IACUC review as based on information provided by PI about cameras. No glow camera would not impact animals and the protocol would be strictly observational.

Seemann exited at 1:16 pm.

Toe-clip and pain assessment was reviewed. The policy provided by PI states that toe clipping is not allowed for lab animals. But this is different when in wildlife and can be approved with justification. The toe clipping does result in removal of that first bone.

Lizards have tail clip. Will a toe-clip also be done to mark? Only tail-clip will occur on lizards. No toe-clipping will be done. Photo data base and indication of tail? Will be used to mark animal for avoiding resampling. Bucal swabs, were they considered? PI indicates conflicting literature. Bucal swabs have a lot more handling time and this may cause more stress.

PI relooked and documentation did not specify use of no-glow evidence. He will provide this detail in submission.

Filtered water use: Use bottle spring water. Restraint time steel plastic back for 4 hours would raise concern for air and water. Is there a way to monitor? Yes, monitoring will occur every half hour. Overheating in plastic bag is our of a concern. Misting and green vegetation is provided. The bags will not be near sun. Work amphibians first to reduce time.

Analgesia: There is some that can be used for reptiles. This will increase handling time. Amphibians would not have a good analgesia at the point of the cut.

Blood volume 5-10% body weight: 10% is acceptable for reptiles. Try to stick with 8% or less.

Seemann re-entered at 1:24 pm

Are lizards of the size where blood collection is not feasible? Some will be small. Other species could be large enough to do blood draws. But to limit handling time and lizards all have fracture plains in tails, tail clip was requested. We will only take a small bit, the small tip of the tail.

Closed Meeting: S. McCracken exits at 1:31 pm.

Closed Meeting Discussion: TPWD permit has not been provided yet but has been submitted. We can include a stipulation noting permit needs to be acquired.

Excessive bleeding is not expected but could occur. What would be their reaction if excessive bleeding is observed? Adding details as to what would occur if excessive bleeding occurs.

Specify experimental endpoint if adverse indicators for animal health are observed in monitoring

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Protocol mentions venomous animals but no details on their procedures to prevent staff exposures. Add details on difference in staff handling if venomous animals are handled, such as provide SOP for handling in field and when bringing them back.

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

Stipulations include:

1. Need TPWD permit
2. Add detail of no-glow camera use to protocol
3. Clarify blood volume as described
4. Exact number of endangered species expected to be collected
5. Please clarify actions taken if excessive bleeding of specimen is observed
6. Specify experimental endpoint if adverse indicators for animal health are observed in monitoring
7. Add details on difference in staff handling if venomous animals are handled (in post-meeting review of protocol, this was found in restraint section of protocol, therefore, not included in stipulation letter to PI)

Vote yes: 9

Recused: 1 (McCracken)

Vote no: 0

Excused: 1, (Seemann, Scarpa voting for Seemann)

Abstain: 0

McCracken re-enters at 1: 40 pm.

IACUC #: 2022-02-044 (rec# 74)

Protocol title: Colony Island Network Design and Implementation (CINDI) to recover waterbirds in the Gulf of Mexico: Pilot Study

Principal Investigator: D. Gawlik

Reviewers: J. Scarpa and N. Galvan

Conflict of Interest: N/A

Species: Birds (*Ardea alba*, *Egretta tricolor*, *Egretta rufescens*, *Hydroprogne caspia*, &...)

Summary: Protocol Objectives: **1.** Develop a GIS-based prioritization model from stakeholder input and long-term bird nesting data and calibrate the model with stakeholder knowledge and field data on foraging habitat and colony characteristics. **2.** Maximize stakeholder engagement throughout the model development process. **3.** Prioritize a network of colony islands and sites that have the highest potential for enhancing waterbird nesting.

CITI Training: verified

OHP Enrollment: verified

Open meeting: Dr. Gawlik enters at 1:41 pm

Open meeting Discussion: Birds now live on dredging spoils. Expensive to rehabilitate these islands, about 27 million dollars. No one has integrated all colony islands have the same capabilities to support nesting. Foraging habitat is not the same across all islands. TAMU-CC is the drone/productivity part of the project. Tagging/tracking part is done by TAMU-Kingsville.

TAMU-K protocol was expected to be submitted this week. But using student at Coastal Bay estuary is an additional complication. TAMU-k is hoping to get approval soon.

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Using drone with student: Would there be a spotter there to assist student to avoid not dropping too low that would cause bird to fly. Yes, absolutely. Spotter is a key part of the team for safety. Who is the spotter? No specialize training is required. PI has been the spotter. Another individual might be added. Drone operator has drone fly license. What effect would the drone have on the bird population being observed? Box plot was reviewed with PI explaining the appropriate drone distance to avoid any adverse effect on bird population. Meta analysis was used to analyze over 200 studies to identify appropriate distance and narrow downed the studies to appropriate species of bird and type of drones. Drone flight and bird nesting was evaluated. 50 meters was used as logical breaking point. Nesting type (colonial or not) and altitude of drone was an indicator of effect seen. Effect size is very small. If zero on plot, odds are 50/50 in having a disturbance. Higher probability if over zero mark. This was seen in less than 50m for non-colonials and >50 less than ?. If above 50 m, it is a very low likelihood of effect on birds. The analysis was interesting and looking forward to getting out as individuals are need of this type of information. The plot does not give a gradient effect. Parameter estimates come from other studies, so you cannot control for the variation of altitude. The sample size was too low to get at a specific altitude. The above or below 50m was a way to get enough sample size to see an effect.

Fish typo on page 4 under animal activities. Field capture states fish. PI confirmed this is a typo. No fish are in the project.

Tagging protocol selected but this will not be done by TAMU-CC. As lead PI, Gawlik needed to include to cover the entire project should TAMU-K not cover the tagging piece.

Closed meeting: Gawlik exits at 1:57 pm

Closed meeting discussion: The biggest concern was drone disturbance, which he answered very well. No effect at 61 m but an effect by another publication showed effect at 46 m. So, 50 m he has chosen is kind of in this grey area. Could allow the acceptance of 50 m with observation for adverse behaviors and put in place a plan to adjust when negative effect seen.

Do they list what drone type they are using? Know they are using rotary-type. Think DJI inspire one. But good to specify in the protocol since the guide does refer to impact based on drone type, size, rotary type, etc. Does have specified in study document DJI Matrice 300.

Flying in Laguna Madre would restrict the ability to fly 50 m because of the restricted airspace.

The only other item is the TAMU-K approval.

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

Stipulations include:

1. Confirmation of TAMU-K IACUC approval for tagging part of protocol
2. Could allow the acceptance of 50 m with observation for adverse behaviors and put in place a plan to adjust when negative effect seen.
3. Specify the drone rotary type
4. Fix fish typo on page 4, second line (IACUC coordinator made change)
5. Reminder of restricted air the ability to fly no greater than 50 m. If the protocol requires you fly 50 or above for animal welfare but restricted air space prevents you from flying greater than 50 m, then this area may not used.

Vote yes: 9

Recused: 0

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Vote no: 0
Abstain: 0

Excused: 2 (Gonzales, Seemann, Scarpa voting for Seemann)

IACUC #: 2022-03-048 (rec #77)
Protocol title: Medaka fish breeding
Principal Investigator: F. Seemann
Reviewers: K. Banks and A. Chapa
Conflict of Interest: F. Seemann
Species: Japanese rice fish (aka Medaka), *Oryzias* sp. (freshwater, marine, and transgenic)
Summary: The objective of this animal use protocol is to continue a fish breeding program for the Japanese medaka (*Oryzias latipes*) strains (CAB, carbio, orange red, HdrR-III1, HNI-II; transgenic strains: lambda-liz, twist:dsred/col10:gfp,ctsk:gfp, rag1:gfp, col10:gfp/osx:mcherry) and the marine medaka (*Oryzias melastigma*) strain, to provide researchers at TAMU-CC and beyond with embryos, larvae, juveniles and adult fish for their projects. TAMU-CC is 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 Training: verified **OHP Enrollment:** verified

Discussion: No issues with the protocol overall. This is a de novo protocol. Animal use list has grown over the course of this study with the addition of the number of strains. No reportable incidents.

Using MS222 and needs to be included in the protocol. This was an observed issue with the system that we will correct and have her add in.

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

Stipulations include:

1. Clarify mesh size
2. Add list of anesthetics to protocol

Vote yes: 9
Vote no: 0
Abstain: 0

Recused: 1, Seeman (Scarpa voting for Dr. Seemann)
Excused: 1, Gonzalez

V. Amendments

IACUC #: 2021-11-036 (rec #96)
Protocol title: Biol 3425: Functional anatomy reptile adhesion lab
Principal Investigator: D. Orbach
Reviewers: F. Seemann and L. Lloyd
Conflict of Interest: Orbach
Species: *Anolis*
Amendment Type: Adding New Personnel, Deleting Personnel, Protocol Change (change in methodology), Change Location, Other Changes
Justification: A new teaching assistant was added to the course who requires training in reptile handling (training protocol updated), euthanasia protocol added, and building name changed (incorrect name given).
CITI Training: verified **OHP Enrollment:** verified

Open meeting: Orbach present at 2:15pm

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Open Meeting Discussion: Revise to state ensure death a second method of euthanasia would be use. Lab has been inspected by EHS/Dr. Scarpa. EHS verif

Closed meeting: Dr. Orbach exited at 2:17 pm

Closed meeting discussion: OHP has been verified for staff being added. Correct lab room number was verified and correct lab was inspected by EHS.

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

Stipulations include:

1. Revise to state ensure death a second method of euthanasia would be used (post-meeting, it was noted that this was included in separate supporting documentation, approved by Chair)

Vote yes: 8

Recused: 1 (Orbach)

Vote no: 0

Excused: 2 (Gonzales, Seemann, Scarpa voting for Seemann)

Abstain: 0

IACUC #: 2021-04-009 (rec #97)

Protocol title: Assessment of the innate immune system development in larval marine medaka fish

Principal Investigator: F. Seemann

Reviewers: W. Xu and M. Garcia

Conflict of Interest: F. Seemann

Species: Japanese medaka

Amendment Type: Adding New Personnel, Principal Investigator Change

Justification: The IACUC Coordinator found the protocol was missing the PI as personnel and that it may have been deleted accidentally, so the amendment is correcting this

CITI Training: verified OHP Enrollment: verified

Discussion: Re-adding PI to protocol due to adminisitrative error where PI was removed. Turner has OHP expiring soon.

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

Vote yes: 9

Recused: 1 (Seemann Scarpa voting for Seemann)

Vote no: 0

Excused: 1 (Gonzalez)

Abstain: 0

IACUC #: 2021-08-024 (rec #98)

Protocol title: Effects of PFOS/PFHxS expsoure during innate immune system development on immune competence in marine medaka

Principal Investigator: F. Seemann

Reviewers: W. Xu and M. Garcia

Conflict of Interest: F. Seemann

Species: Japanese medaka

Amendment Type: Adding New Personnel, Principal Investigator Change

Summary Justification: The IACUC Coordinator found the protocol was missing the PI as personnel and that it may have been deleted accidentally, so the amendment is correcting this

CITI Training: verified OHP Enrollment: verified

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Discussion: Re-adding PI to protocol due to administrative error where PI was removed. Turner has OHP expiring soon. OHP verified.

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: 8

Vote no: 0

Abstain: 0

Recused: 1 (Seemann, Scarpa voting for Seemann)

Excused: 2 (Gonzales and Orbach; Orbach in waiting room still)

Dr. Orbach entered at 2:27 pm.

VI. Continuing Review

IACUC #: 2021-03-007 (rec #46)

Protocol title: Hybrid Headwater Fishes Conservation Genomic Assessment of imperiled freshwater fishes endemic to the Pecos and Devils Rivers

Principal Investigator: D. Portnoy

Primary Reviewer: S. McCracken and C. Sassine

Conflict of Interest: N/A

Species: Fish (multiple species)

Protocol Summary: The purpose of these research projects is to conduct conservation genetic assessments for a number of different freshwater fishes in Texas that currently the focus of ongoing conservation by State (TPWD) and Federal (UFWS) agencies. The work will require capture of live fishes in order to obtain tissues for genetic work.

CR update: A) Samples (fin clips) have been fully collected for species associated with Hybrid Headwater Fishes (*Gambusia nobilis*, *Gambusia affinis*, *Gambusia geiseri*, *Cyprinodon bovinus*, and *Cyprinodon variegatus*). Genomic analysis is now underway. B) No samples (fin clips) have been collected for species associated with Conservation Genomic Assessment of imperiled freshwater fishes endemic to the Pecos and Devils Rivers. There was a delay in contracting at TPWD and the fully executed contracting was just signed in January 2022.

Adverse Events reported? No

Alternatives to Animal Use? No

Alternatives to Potentially Painful Procedures? No

Not Unnecessarily Duplicative? Yes

Enrollment Status:

CITI Training: verified

OHP Enrollment: verified

Discussion: Update of sampling notes provided. A delay reported for conservation genomic part of the study indicated. No concerns.

He reported for one species numbers over what was provided in the protocol as expected. Six sites where animals were found and expected 30 at sites. When they sampled at sites, the animals at that site was unexpected. What do you do when you have numbers that exceed original estimation? You are not going to leave the field, submit an amendment and come back to sample again. Is there a latitude that can be given in a wildlife study when you give your best estimate but in the field experience a greater number?

Species were found in other approved locations that was unexpected. So the study team was not oversampling the sites.

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This protocol was a one-time sampling so there is no an amendment in sampling because there is no plan to do additional sampling.

Members discussed the need to submit a reportable event for the over enrollment of the species. Number was exceeded by 61, a 38% increase. The error is understandable with wildlife studies and not deliberate, but should be reported.

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: 8

Vote no: 0

Abstain: 1

Recused: 1 (Seemann, Scarpa voting for Seemann)

Excused: 1 (Gonzales)

Policy conversation: Do we put as a matter of course for wildlife studies an ability to enroll a certain percentage over and not be reportable?

Current review procedures would require an amendment before over enrolling. You can not always predict who goes in the trap, who bites the hook. Is 10% reasonable? For small fish this could be more like 20% but for other species like shark, this would be fine. But anything more that should be reported.

If you go back in the field on a later day and continue to overenroll by going back into the field, then this is a problem. The difficulty is that this 10% margin is arbitrary and sets a precedent for our review. Is there any difficulty for the study team by reporting? No. This data can be used for trending issues across protocols. An example was provided where fish from vendors kept coming in unwell. This would trigger us to evaluate the vendor itself. Outside of the administrative burden to fill in paperwork, there is no adverse effect for these types of issues.

VII. Reportable Events

None

VIII. Other

The next meeting is scheduled for Friday, April 8, 2022, from 1:00 pm to 3:00 pm.

Meeting was adjourned at 2:43 pm.