DEPARTMENT OF LIVESTOCK AND AQUACULTURE RESEARCH
Third Annual Conference 2025
Yezin, Nay Pyi Taw, 1st April 2025

Call for Paper

Theme: *"Towards Sustainable Food System through Collaboration in Livestock and Aquaculture Research"*

We invite authors to submit abstracts (both for oral and poster presentations) on the following topics:

1. Research on value added livestock and fish products;
2. Sustainable production system;
3. Animal and fish nutrition;
4. Disease control in livestock and fish;
5. Social economic study on livestock and fisheries;

Presentation options

- • Oral presentations: 10 minutes
- • Poster presentation (A0 size; 841mm x 1189mm)

Abstract proposal format (in English)

- • Presentation title (*be catchy, clear and concise*)
- • Corresponding author (*name, affiliation, country, email address*)
- • Other author(s) (*name, affiliation, country*)
- • Outline (max 500 words), with introduction (including objectives), materials & methods, results, discussion and/or conclusions and up to 5 references
- • Font- Calibri; Font size- 11; Size- A4 one page
- • Additionally, kindly submit a brief abstract (about ½ of A4) in **Myanmar language**
- • Please see sample

Oral Presentation Guidelines

Please prepare your oral presentation according to the following guidelines:

- • Ten (10) minutes will be for the presentation and five (5) minutes for a question and answer session.
- • To facilitate strict time management chairs will give presenters warning signs after 8 min (2 min left), and 10min (time is up).

Poster Guidelines

Poster guidelines will be provided to individual email:

Sample papers (<u>both for Oral and Poster presentations</u>)

(Myanmar version)

(FP04) အပင်နှင့်ငါး(နိုင်းလ်တီလားပီးယားနှင့်ရွှေဝါငါးကြင်း)တွဲဖက်၍ ပတ်ဝန်းကျင်အကျိုးပြုမြေမဲ့စိုက်ပျိုးမွေးမြူရေးစနစ် (Aquaponic system)ဖြင့် စမ်းသပ်သုတေသနပြုခြင်း

ထင်လင်းအောင်၊ ယဉ်မေသန်း၊ မျိုးခန့်ဇော်
မွေးမြူရေးသုတေသနစခန်း(မန္တလေး)၊ အောင်မြေသာစံမြို့နယ်၊ မန္တလေးတိုင်းဒေသကြီး
Email address: moeko33.mm@gmail.com

စာတမ်းအကျဉ်း

အပင်နှင့်ငါး (နိုင်းလ်တီလားပီးယားနှင့်ရွှေဝါငါးကြင်း)တွဲဖက်၍ ပတ်ဝန်းကျင်အကျိုးပြု မြေမဲ့စိုက်ပျိုးမွေးမြူရေးစနစ် (Aquaponic system)ကို အသုံးပြု၍ Monoculture နှင့် Polyculture မွေးမြူခြင်းကို အုပ်စု(၃)ခု ခွဲ၍ စမ်းသပ်ခဲ့ပြီး အုပ်စုတစ်ခုလျှင် triplicates ပါဝင်ပြီး Monoculture မွေးမြူသော အုပ်စု (၁)နှင့် အုပ်စု(၂)တွင် တီလားပီးယား (၇၀)ကောင်+ ဆလပ် ရွက်ပင် (၅)ပင်+ မုန်ညှင်းပင် (၅)ပင်၊ ရွှေဝါငါးကြင်း (၇၀)ကောင် + ဆလပ်ရွက်ပင် (၅)ပင်+ မုန်ညှင်းပင်(၅)ပင်၊ Polyculture အုပ်စု(၃)တွင် တီလားပီးယား (၃၅)ကောင်+ ရွှေဝါငါးကြင်း (၃၅)ကောင်+ ဆလပ်ရွက်ပင်(၅)ပင်+မုန်ညှင်းပင်(၅)ပင် အသီးသီးထားရှိခဲ့ပါသည်။ ရေအရည်အသွေးကို တစ်ပတ်လျှင် တစ်ကြိမ်တိုင်းတာပြီး ငါးနှင့်အပင်ကြီးထွားနှုန်းကို (၂)ပတ်တစ်ကြိမ် တိုင်းတာစစ်ဆေးခဲ့ပါသည်။ စမ်းသပ်ကာလအတွင်း ရေအရည်အသွေးအနေသည် ချဉ်ဖန်နှုန်းအနေဖြင့် အုပ်စု(၁)တွင် (၈-၈.၃)၊ အုပ်စု(၂)တွင် (၇.၉-၈.၅) နှင့် အုပ်စု(၃) (၇.၉-၈.၃) အဖြစ် လည်းကောင်း၊ ပျော်ဝင်အောက်ဆီဂျင်အနေဖြင့် အုပ်စု(၁)တွင် (၄.၃-၅.၅)၊ အုပ်စု(၂)တွင် (၄.၃- ၅.၆) နှင့် အုပ်စု(၃) (၄.၆-၅.၆) အဖြစ်လည်းကောင်း၊ အမိုးနီးယားအနေဖြင့် အုပ်စု(၁)တွင် (<၀.၂)၊ အုပ်စု(၂)တွင် (<၀.၁) နှင့် အုပ်စု(၃) (<၀.၁) အဖြစ်လည်းကောင်း အသီးသီးရှိကြပါသည်။ ရလဒ်အနေဖြင့် စမ်းသပ်ကာလ (၆)ပတ်ကြာမြင့်ပြီး Monoculture နှင့် Polyculture မွေးမြူသော အုပ်စု (၁) နှင့် အုပ်စု(၃)သည် Monoculture မွေးမြူသော အပင်နှင့်ငါးကြီးထွားနှုန်းတို့သည် အုပ်စု(၂) ထက် သာလွန်ကောင်းမွန်ကြောင်း တွေ့ရှိရပါသည်။

Sample papers (<u>both for Oral and Poster presentations</u>)

(English version)

(FP03) Investigation on the effect of two types of hormone application on fecundity and hatching rate of *Monopterus albus*, Asian swamp eel or rice field eel brood fish

Myo Khant Zaw, Yin May Than, Khaing Nyein Chan Soe
Aquaculture Research Station (MDY), Aung Myay Thar Zan Township, Mandalay Region, Myanmar
Email: myokhant043883@gmail.com

Introduction

The Asian swamp eel (*Monopterus albus*), also known as rice eel, ricefield eel, or rice paddy eel, is a commercially important, air-breathing species of fish in the family Synbranchidae. Obligate air-breathing. Found in hill streams to lowland wetlands often occurring in ephemeral waters. Adults are found in medium to large rivers, flooded fields and stagnant waters including sluggish flowing canals, in streamlets and estuaries. Benthic, burrowing in moist earth in dry season surviving for long periods without water. Occasionally dug out in old taro fields, in Hawaii, long after the field has been drained; more frequently observed in stream clearing operations using heavy equipment to remove large amounts of silt and vegetation where the eels are hidden. Nocturnal predators devouring fishes, worms, crustaceans, and other small aquatic animals; also feed on detritus. Are protandrous hermaphrodites. The male guards and builds nest or burrow. Marketed fresh and can be kept alive for long periods of time as long as the skin is kept moist. Good flesh. Important fisheries throughout Southeast Asia.

Materials and methods

- For eel hatching, 60 eel should be released in plastic tank of 10 x 6 x 1 feet with a depth of 30 cm in water, 1 male and 3 females before hatching of one month
- The eel's food should be roughly 3% of the eel's weight by mincing fish and fish flakes. Change the water once a week.
- Males build a submerged nest in order to lay eggs, after (30) days, females lay eggs in the nest and attach the eggs to them. The egg of the female eel extends from her stomach to the bottom of her abdomen, and can lay up to 500-1000 eggs in one nest.

Experimental design of dwarf catfish (*Mystus pulcher*)

Experimental design	HCG Hormone (Control, 1500UI , 2000), LHRHa Hormone (Control, 100µg , 150µg)
Type of fish species	*Monopterus albus*, Asian swamp eel
Dimension of culture tank	capacity of 20 L (10 x 6 x 1 ft)
Initial wt.	102.5 ± 3.24 g
Stocking density	0.1 pcs/m²
Feeding rate	3% of BW (Late afternoon every two days by home-made feed (including chicken intestine-70% combined with commercial feed)
Experimental design	three replicates of each
Rate of water change	water change regime was 2-3 times per morning with 100% exchange of freshwater
Experimental period	60 days

Results

Injection of Hormone	1000 UI	1500 UI	2000 UI	P - value
HCG (Fertilized %)	66.67 ± 8.50	65.33 ± 11.37	85.33 ± 9.07	0.08
	50 µg	100 µg	150 µg	
LHRHa (Spawning/ hatching)	63.33 ± 6.11	62.33 ± 6.51	76.33 ± 5.13	0.049

Discussion and conclusion

In captivity, competition for fecundity and fertilized rate of eggs between eels is strong because they are carnivorous, eat fresh feed and home-made feed (including chicken intestine- 70% combined with commercial feed). Feed might be due to inadequate nutritional value of the diet and management. On the other hand, using pelleted feed in mixing with home-made feed isn't an optimal method, although it is really convenient and being applied widely by farmers. Therefore, study of feed formulas to mix feed from locally available and crude materials (rice bran, coconut cake, golden snail, trash fish, mussels) is necessary for reducing the cost of production. Furthermore, pelleted feed for rice field eel needs to be produced for development of farming the species on a large scale.

Acknowledgement

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References

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Liu T, Li, Xia, Chen F, Qin and Yang, 2000. Requirements of nutrients and optimun energy-protein ratio in the diet for Monopterus albus. Journal of Fisheries of China 2000, (Abstract).

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