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## A Study on Some Decapods in Myeik Environs, Myeik Township

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### Abstract

Some prawns, shrimps, crabs and lobsters were collected around Myeik environs. The study period lasted from May 2013 to April 2014. A total of nine species of prawns and shrimps belonging to three families, 12 species of crabs belonging to five families and five species of spiny lobsters belonging to only one family Palinuridae of order Decapoda were recorded from the study area. The morphological characters of each species were given. Diagnostic characters of each species were presented together with relevant photographs and suggestions for future work were outlined.

**Key words :** prawns, shrimps, crabs, lobstars

## Study of Some Popular Edible Fruits in Myeik Area

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### Abstract

The edible fruits were collected from Myeik Township in Tanintharyi Region. These are *Ananas muricata* (L.) Merr.(Du-yin-awzar), *Carica papaya* L.(Thin-baw), *Citrullus vulgaris* Schard. (Hpaye), *Cocos nucifera* L.(Ohn), *Durio zibethinus* Marry. (Du-yin), *Garcinia mangostana* L.(Min-gut), *Nephelium lappaceum* L.(Kyet mauk), *Musa sapientum* L.(Yakhine-nget-pyaw), *Psidium guajava* L. (Malaka), *Salacca zalacca* (Gaertn.)Voss., (Yingan), *Syzygium jambos* L.(Hnin-thi). The morphological characters of the plants, medicinal uses and traditional uses were presented in this research. The yield of each plant, price of each fruits and the price of fruits per plant were calculated for all fruit plants. In this study *Durio zibethinus* Marry. (Du-yin) and *Garcinia mangostana* L. (Min-gut) plants have best income for local people. *Nephelium lappaceum* L. (Kyet mauk) and *Cocos nucifera* L.(Ohn) plants were get moderate income and the other plants get less income for local people.

**Key words:** Morphology, medicinal, economic importance.

## Phytoplankton Composition along Taninthayi Coastal Waters, Myanmar

Nyo Nyo Tun<sup>1</sup> and Si Thu Hein<sup>2</sup>

### Abstract

A total of one hundred and sixty nine taxa of marine phytoplankton were recorded during the survey. The identified phytoplankton consisted of 93 taxa of diatoms, 70 taxa of dinoflagellates, 3 taxa of silicoflagellates and 3 taxa of cyanobacteria. Species composition of diatoms was more than that of dinoflagellates in most stations. The genera with high species composition were *Ceratium*, *Chaetoceros*, *Protoperdinium*, *Coscinodiscus* and *Rhizosolenia*. Some toxic dinoflagellates are distributed in most parts of the study area.

**Key words :** phytoplankton, species composition, dinoflagellates

## Zooplankton Species Composition and Distribution of Southern Myanmar Waters

Zin Lin Khine\*

### Abstract

The water samples from twelve stations of Taninthayi waters were collected by R/V DR. FRIDTJOF NANSEN (November- December 2013). A total of 212 species and 39 taxa of zooplankton were recorded. The recorded maximum and minimum composition of zooplankton was 183 species at Station 1295 situated in the waters off Dawei Point and (90) at Station 1334 located in the offshore area. Zooplankton species compositions in the shallow water stations were higher than those of deep water stations. Copepods with species composition (102) were the most dominant group in zooplankton communities at all stations. Copepoda, Chaetognatha, Urochordata, Mollusca and Cnidaria were widely distributed in the study area. The species of Calanoidae, Eucalanidae, Paracalanidae and Oncaeidae, Corycaeidae families and *Acetes* sp. were found to be common at Station 1295 (Dawei waters) and 1331 occurred in the shallow water (near Lampi Island). The above species were the main food item for marine fish.

**Key words :** Copepods, species compositions, marine fish

## Fishery of Stationary Bag Net (Bamboo-Raft) in Myeik Coastal Waters

Thinzar Lwin Lwin<sup>1</sup>, Nyo Nyo Tun<sup>2</sup> and Si Thu Hein<sup>3</sup>

### Abstract

Samples were collected from the Stationary bag net at the three stations of Innlaymyine, Kywe-ku and Ma-Eing from June 2013 to February 2014. A total of 36 species of fish were recorded. At Innlaymyine station, family Leiognathidae was caught abundantly throughout the study period. Four species of *Coilia ramcarati*, *Setipinna taty*, *Stolephorus baganensis* and *S. insularis* were caught. Among them, *Stolephorus baganensis* and *S. insularis* were dominant in Innlaymyine Station. The maximum percentage of the fish was (35.3%) found in February and the minimum (27.7%) in January and the highest catch per unit effort was observed in December (4.723Kg/catch) and the lowest was (4.04 Kg/catch) in August at Innlaymyine Station. At Kywe-ku Station, family Engraulidae was caught abundantly during the study period. *Secutor* spp. were most dominated in Kywe-ku Station. The highest percentage of catch weight (28.8%) was found in July and the lowest was (13.2%) in October and the highest CPUE was observed in October (10.321 Kg/catch) and the lowest was in December (5.075 Kg/catch). At Ma-Eing Station, shrimps were more dominant than fish species and the highest CPUE of fishes was observed in February (10.13Kg/catch) and the lowest was (5.55Kg/catch) in September.

**Key words :** catch per unit effort, Innlaymyine, Kywe-ku and Ma-Eing stations

## Study on the Surimi Production and its Physical Properties

Wai Zar Phyo<sup>1</sup> and Nang Mya Han<sup>2</sup>

### Abstract

The present study was carried out from October 2011 to February 2012 in ASK Andaman Co., Ltd. A total of 19 species of fish belonging to 17 families used in surimi production was recorded. The process of surimi production was also described. *Otolithes* sp. and *Pennahia* sp. were used to produce guchi surimi which has the highest gel strength of (1620 g.cm). In terms of colour, *Priacanthus* sp. and *Nemipterus* sp. were used to produce itoyori surimi which has the whitest colour. The pH of the products ranged from 6.9 to 7.24. The range of moisture content was 74.7-76.97%. The highest impurity content was found in mixed surimi followed by guchi surimi and itoyori surimi.

**Key words:** surimi, guchi, itoyori, mixed, gel strength

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# ဓမ္မဝိလာသဝတ္ထုမှ ဇာတ်ဆောင်များ၏အရေးပါမှု

ဇော်ဝင်း ၊ ချိုချိုနွယ်(၁)

" ဇာတ်လမ်းအကျဉ်းချုပ် "

ဝတ္ထုတစ်ပုဒ်တွင် ဇာတ်လမ်းဇာတ်ဆောင်ကာလဒေသနောက်ခံအဖွဲ့တို့ ပါဝင်ရစမြဲဖြစ် သည်။ ဇာတ်လမ်းနှင့်ဇာတ်ဆောင်ကို ခွဲထုတ်၍ မရနိုင်ပါ။ ဇာတ်လမ်းနှင့်ဇာတ်ဆောင်မှာ ဆက်စပ်မှုရှိသည် ဇာတ်ဆောင်များ၏ အတွေးအကြံအပြုအမူ ခံစားမှုများကြောင့်သာ ဇာတ်လမ်း ဖြစ်ပေါ်လာရသည်။ ဇာတ်လမ်းဖြစ်ပေါ်စေရန် ဇာတ်ဆောင်၏ အခန်းကဏ္ဍမှာ အရေးပါလှသည်။ ဤဝတ္ထု၏ ဦးတည်ချက်မှာ ဗြဟ္မာစိုရ်တရားကို လိုက်နာကျင့်ကြံစေရန် ဖြစ်သည်။ ထိုဦးတည်ချက်ကို ဖော်ပြရာတွင် ဇာတ်ဆောင်တို့၏ အခန်းကဏ္ဍအရေးပါပုံကို လေ့လာတင်ပြခြင်းဖြစ်ပါသည်။

## **A Comparative Study on the Differences between the Standard Myanmar Language and the Myeik Dialect**

Pan Ngon<sup>1</sup>, Saw Myat Ohnmar<sup>2</sup>, Kay Thi Myint<sup>3</sup>

### **Abstract**

This paper is an attempt to present the differences between the Standard Myanmar Language and the Myeik Dialect. Myeik is a dialect, rich in its own vocabularies and is significant for its phonological differences. The study is carried out in terms of different levels; phonological, morphological, syntactic and idioms. Our aim is to narrow down the communication gap between the standard language speakers and dialect users.

### **Aim**

The aim of writing this research paper is to bridge the gap between the dialect speakers and the users of Myanmar Standard language when they interact with each other. If there were mutual understanding, there would not be a breakdown in communication.

## The Origin of Ancient Dawei Region

Khin Khin Htay\*

### Abstract

Dawei is a city in south-eastern Myanmar and situated on the northern bank of the Dawei River. It is situated at  $19.09^{\circ} \text{N}$   $98.20^{\circ} \text{E}$ . Dawei is a port at the head of the Dawei River estuary, 30 km. from the Andaman Sea. Dawei race is included in Tibeto-Burman group which is composed of Rakhine, Taungyoe, Inntha, Rabin, Danu and Yo. Dawei race is lineage of Tibeto-Burman group. According to the revealing and excavated evidences, ancient cities existed in Dawei district. Ancient Cities of Dawei are Aungthawady, Bhumidevanagara Hmaingkayi, Thagara, Wedi, Sinneik (1) (2), Htaungkwe, Mukhti, Kabyaw Nantawn and Tharawady. This paper is to find out the facts on the origin of ancient cities in Dawei region. It also evaluates how people built the cities, which rules they used and how they lived.

**Key words:** Tibeto-Burma, Thavoy, Thagua, Thawine, Dhawei, Thagara, Wedi, Muttasukhanagara, Kyaksa, Tharawady

# ဝိနယမဟာဝါလာသိက္ခာပုဒ်အချို့ကိုလေ့လာခြင်း

နှင်းထွေး<sup>၁</sup>

စာတမ်းအကျဉ်းချုပ်

ဤစာတမ်းသည် ဝိနယမဟာဝါလာ သိက္ခာပုဒ် အချို့ကို လေ့လာခြင်း စာတမ်းဟု ဆိုသော်လည်း စာတမ်းအစတွင်ပိဋကဟူသော ဝေါဟာရ၊ ပါဠိပိဋကအကြောင်း၊ ပိဋကတ်တော် ပေါ်ပေါက်လာပုံ၊ ပိဋကတ်တော်ခွဲခြားပုံတို့ကို ဖော်ပြပြီးနောက် ဝိနယ မဟာဝါလာဝိနည်း သိက္ခာပုဒ်အချို့ကို တင်ပြထားပါသည်။ ထိုသို့ တင်ပြရာတွင် မြတ်ဗုဒ္ဓသည် သိက္ခာပုဒ်တို့ကို ချမှတ်ရာတွင် ကြိုတင်ရေးဆွဲပြင်ဆင်ထားခြင်း မဟုတ်ပေ။ မြတ်ဗုဒ္ဓ၏ သံဃာအဖွဲ့အစည်းတွင် ရဟန်းတော်များ အရေအတွက် များပြားလာသောအခါ မလိုလားအပ်သောအမှုကိစ္စများ ပေါ်ပေါက်လာသည်။ ထိုအခါ ရဟန်းတို့က ဘုရားရှင်အား အဖြစ်အပျက်များ လျှောက်တင်သောအခါ အဖြစ်အပျက်အပေါ် မူတည်၍ သိက္ခာပုဒ်များ ချမှတ်ခဲ့ပါသည်။ သံဃာအဖွဲ့အစည်းတစ်ရပ်လုံး စနစ်တကျဖြစ်စေရန်အတွက် ချမှတ်ခဲ့သော သိက္ခာပုဒ်များကို 'မည်သည့်နေရာ၊ မည်သည့်ပုဂ္ဂိုလ်ကို ဦးတည်၍ ဘုရားရှင် ချမှတ်ခဲ့ကြောင်းကို နောက်ခံ အဖြစ်အပျက်များနှင့်တကွ ဖော်ပြထားပါသည်။ ထိုသို့ ဖော်ပြရာတွင် ရာဇဂြိုဟ်ပြည်နှင့် သာဝတ္ထိပြည်တို့၌ ချမှတ်ခဲ့သော သိက္ခာပုဒ်များထဲမှ အချို့ကို တင်ပြပါမည်။

## Study on Physicochemical Properties of *Nypa fruticans* (Da-ni) Fruit

Aye Aye San\*

### Abstract

The aim of this project is to study the physicochemical properties of *Nypa fruticans* (Da-ni) fruits from Myeik Township, Tanintharyi Region during July to October, 2013. The phytochemical tests of *Nypa fruticans* (Da-ni) fruits such as glycosides, phenolic compounds,  $\alpha$ -amino acids, flavonoids, carbohydrates, alkaloids, saponins, starch, steroids and Tannins were determined. The nutritional values such as moisture, ash, fiber and protein were also determined using with AOAC methods. Among them, the contents of moisture, fiber and protein which are good for health, were also found in great amounts. And then, Zn, Fe, K, Na, Mg, Ca, Cu, Pb and Hg as mineral contents were detected by atomic absorption spectrophotometer. The results showed that *Nypa fruticans* (Da-ni) fruits do not contain Pb and Hg as toxic heavy metals.

**Key words:** *Nypa fruticans* (Da-ni), Phytochemical tests, Nutritional values, Mineral contents

## The Center of a Unicyclic Graph

Kay Khaing Ohn<sup>1</sup>, Khin Thida Thein<sup>2</sup>

### Abstract

In this paper we first introduce the concepts of the center and the median of a graph. Then we study the structure of the center of a unicyclic graph. We also show that for any even cycle  $C$  and for any nonempty set  $S$  of vertices in  $C$ , there exists a unicyclic graph containing  $C$  whose center is  $S$ . Furthermore we examine whether a similar result holds in the case of odd cycles.

**Key words:** center, median, unicyclic graph

## Study on the Bird Species in Myeik University Campus

Soe Naing\*

### Abstract

A total of 69 bird species, 52 genera belonging to 23 families, under 15 orders were recorded in five different habitats around Myeik University campus. The recorded birds were identified down to species level and classified. A total of 24 annually resident species, 23 seasonally resident species, and 22 vagrant species were recorded in five study sites. The highest species number was found in annually resident species.

**Key words** : annually resident, seasonally resident, highest species number