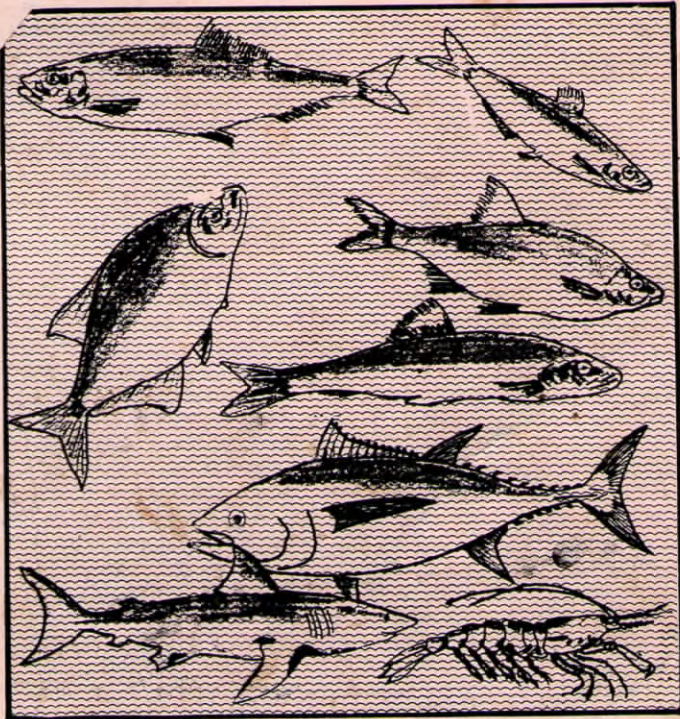




JAHMUURIYADDA DIMOQRAADIGA SOOMAALIYA
WASAARADDA KALLUUMEYSIGA, &
KHAYRAADKA BADDA

WAAXDA CILMI BAARISTA

**MAGACDA & MUUQAALKA
KALLUUNKA**



**JAHMUURIYADDA DIMOQRAADIGA SOOMAALIYA
WASAARADDA KALLUUMEYSIGA, &
KHAYRAADKA BADDA**

WAAXDA CILMI BAARISTA

**MAGACDA & MUUQAALKA
KALLUUNKA**

Waxa Qoray: **SAMARON CUMAR GEEDI**

QIIMAHA

Sh. So. 100

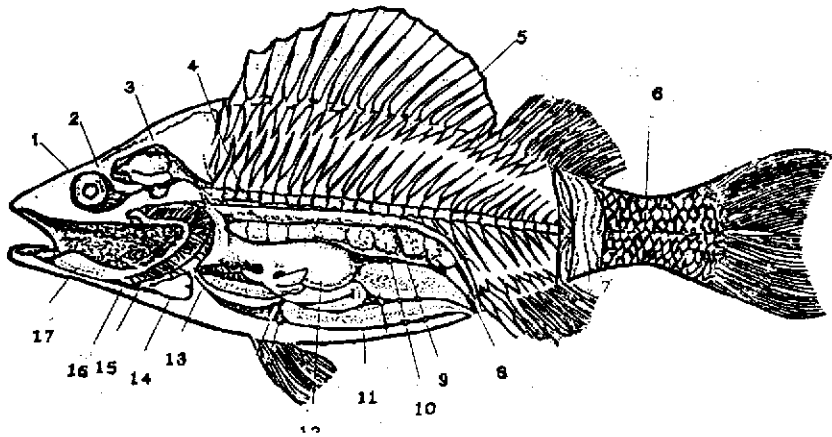


Fig. 11

- | | |
|---------------------|------------------------|
| 1. Isha. | 9. Kellida. |
| 2. Lafta madaxa. | 10. Kiish haweed. |
| 3. Maskax | 11. Xiidme |
| 4. Xanqulle | 12. Calool. |
| 5. Baalhiyood | 13. Beer. |
| 6. Khadka dareenka | 14. Wadne. |
| 7. Murnoyada jidhka | 15. Waafvo. |
| 8. Putada | 16. Miioyada waafwaha. |
| | 17. Carna. |

TUSMAHA BUUGGA

— Eragya Wasiirka	3
— Mahad-Naq	4
— Hordhac	5
— Muhimadda Kalluunka	6
— Sameyska Kalluunka	8
— Nolosha Kalluunka	10
— Aqoonsiga Kalluunka	12
— Magac-Bixinta Kalluunka	19
— Magaca Kalluunka	23
— Sawirrada Kalluunka	30
— Dhacdo Naadir ah	39
— Bibliography Kalluunka	

ERAYGA WASIIRKA

Baahi weyn ayaa in muddo ahba loo qabay helitaanka magacda saxa ah ee kalluunka dalkeenna looga yaqaan iyo wixii macluumaad ah ee la xiriira xilliyada ay yimaadaan iyo sida u kala badan yihiin.

Weydiimo iyo caddeymo ku saabsan arrimahaas ayaa naga soo gaaray dad Soomaali iyo shisheeye isugu jira oo daneynayey in ay ku soo biiraan kalluumeysiga iyo suuq-geyntiisa.

Ammuurahaas oo isbiirsaday darteed ayey Wasaaradda ula muuqatay iyada oo la kaashaneysa aqoon-yahannadeeda, in ay bilowdo cilmi-baarista Magacda iyo Muuqalka Kalluunka Biyaheenna, (Macaan iyo Dhanaanba). Hawshaas oo hadda gacanta lagu hayo waxa qeybteedii hore ka soo baxay natiijooyinka iyo waxtarka uu buuggan yari xambaarsan yahay.

Akhristow, waxaan hubaa in aad ka helli doontid waxyaabo badan oo ku calan gellya, kuwaas oo antici kara cid kasta oo heer walba oo ka tirsan. Waxa oo ku raja weyn in uu ka jawaabi doono weydiimihii hore noo soo gaarey.

Iyada oo tani ay tahay qoriddii u horreysay "First Edition" ayaan filayaa in cilmi-baaristan qeybteeda labaad uu ka soo bixi doono buug si tafatiran u qoraya dhammaan magacda iyo sawirrada khayraadka biyaha.

Waxaan ammaan u soo jeedinayaa dhammaan dadkii gacanta kageystay soo saaridda buuggan, gaar ahaan waxaan ku bogaadinayaa Jaalle Samaroon dadaalkii iyo waqtigii uu u huray cilmi-baarista.

Ugu dambeyntii, waxaan soo dhoweyneynaa ciddii talooyin ku biirin, dhalil ama ammaanba heysa.

AADEN MAXAMED CALI
- Wasiirka -

M A H A D - N A Q

Waxaan mahad ballaaran u jeedinayaa dhammaan dadkii gacanta igu siiyey hirgelinta cilmi-baarista, gaar ahaan WASIIRKA oo mar walba igu dhiiri-gelinayey in hawshan aan ka sal gaaro, isaga oo si joogta ah ula socdey hadba heerka ay mareyso.

Sidoo kale, waxaan mahad u celinayaa Agaasimaha Waaxda Cilmi-baarista, la maareeyahay SMP, iyo Agaasimaha Suuqa Casriga oo aan ka helay talbooyin iyo taageeraba.

Isuduwayaasha Wasaaradda, madaxda iskaasha-tooyinka kalluumaysiga iyo dadkii sida gaarka ah aan u wareystay dhammaan xusuus bey iga mudan yihiin.

Dhinaca farsamada iyo sawir-qaadista waxa si hagar la'aan ah gacan iigu siiyey Jaalle Warfaa, waxanan u hayaa abaal aan duugoobeynin.

SAMARON CUMAR GEEDI
Cilmi-baaraha & qoraha buugga

HORDHAC

Xeebta dalka gobollada ku yaal waxa mid kasta ka jira magac kalluun oo u gaar ah deegaankaas, iyada oo aysan jirin magac dhex-dhexaad ah oo la wada garan karo. Kalluunka Xamar looga yaqaan Yuumbi, waxa Bari looga yaqaan Taraaqad, halka Woqooyi uu noqonayo Deerik, J/Hoosena Nguru. Halkaas waxa ka yimid is-fahamwaa. Sidaas darteed ayey Wasaaraddu go'aansatay in ay bilowdo cilmi-baaris. Ujeedooyinka laga lahaana waxa ugu muhiimsanaa:

1. In la soo urursho dhammaan magacda kalluunka ee gobollada ka jira.
2. In la helo muuqaalka (sawirrada) kallunka iyo khayraadka kale.
3. In la isku dubarido, kaddibna buug iyo posterro laga soo saaro, kuwaas oo lagu baahinayo dalka oo dhan.

Hawshaas oo aad u ballarneyd, waxay lagama maarmaan u tahay shaqooyinka iyo adeegga ay Wasaaraddu ummadda u qabato. Natiijooyinka cilmi-baaristani waxay wax weyn ka tari doonaan dhinacyada:

1. **Tirakoobka:** Waxa sahlanaanaya soo ururinta iyo habeynta wax soo saarka. Waxayna caawineysaa fidiyayaasha soo ururiya xogtaas.
2. **Suuq-geynta:** Waxa seyladaha adduunka ee kalluunka lagu soo bandhigi karaa noocyada kallunka ee dalka si aan qeybteenna u qaadanno.
3. **Wada xiriirka:** Hay'adaha ku hawlan cuntada, ama horumarinta kalluumeysiga, ha noqdaan kuwa caalami ah ama kuwo goboleed, waxay badanaa soo warsadaan xog ku saabsan khayraadka biyaha dalka. Markaas waxa fududaaneysa in si dhaqso leh loogu jawaabo iyo ciddii kale ee dani ka hayso xogtaas.

In ka badan saddex bilood ayey socotey cilmi-baaristu, iyada oo bilaabantay 24.10.86. Waxa sahan iyo baaris lagu sameeyey xeebta dheer ee dalka min Saylac ilaa R/Kiyambooni. Qorshe waqtiyeysan ayaa goob walba lagu tegey, waxa mudnaanta la siiyey lix goobood oo kala ah Saylac, Berbera, Bosaso, Hobyo, Muqdisho iyo Kismaayo, iyada oo loo arkayey in ay matali karaan inta kale.

Dhinaca kale, waxa laga fursan waayey in tijaabo yar "pilot" laga sameeyo magaalo-madaxda ka hor inta aan hawsha weyn la guda-gelin. Tijaabadaan oo socotey intii u dhexeysay 1 — 7dii Oktoobar, waxay ifisay meelo badan oo shaki ka jirey.

Halkan kama muuqdaan sawirradii midabka lahaa oo tiradoodu dhamayd 300, hase yeeshee waxaan filaynaa in ay ku soo baxaan buugga dambe, waayo way dhib badan tahay daabacaadda iyo badinta sawirrada midabka leh.

Waxa mudan in aan la illaawin ujeeddada buuggan yar laga leeyahay oo ah inuu aasaas u noqdo kuwa dambe iyo inuu caawiyo dadka kalluunka ka ganacsada, tirakoob-ayaasha iyo cilmi-baareyaasha. Sidaas darteed qaladaad yar-yar waa laga heli karaa, isla markaas yaan laga filin wax aan loogu talo gelin.

MUHIMADDA KALLUUNKA.

Keydka noolaha biyuhu waa mid dhammaan kara, haddii aan laysku mashquulin kordhinta tarankisa, sida beerista, xannaaneynta, deegaan u daryeelka iyo dib ugu abuuridda noole kale meelaha ay ku yar yihiin. Haddii aan taas la yeelin waxa dhici karta in la gaaro heer kalluunku ku fillaan waayo baahida dadka.

Wax soo saarka kalluunka ee adduunku si aad ah ayuu u kordhay kontonki sano ee u dambeysay, waxa uu ka soo kacay sannadkii 1938kii 20 milyan oo tan ilaa in ku dhow 83 milyan oo tan sannadkii 1982kii. Korodhka intaas le'eg waxa uu ku yimid horumarka laga sameeyey dhinacyada farsamada iyo aqoonta kalluumeysiga Shaxda I waxa ka muuqda WSS-ka adduunka sannadihii 1980 - 84.

'000 tons

Sannadaha	1980	1981	1982	1983	1984
WSS-ka	71,996.3	74,859.4	76,590.1	76,845.9	82,769.8

Shaqo ahaan kalluumeysiga waxa ku hawlan qiyaas 10-12 milyan oo qof, iyada oo tiro intaas le'eg ay ka xoogsadaan warshadaha u adeega kalluumeysiga, sida kuwa doonyaha iyo maraakiibta dhisa, kuwa habeeya iyo kuwa qalabka kale sameeya.

Cunista kalluunka aad ayaa loogu kala geddisan yahay. Arrintani waxa laga yaabaa in ay in badan ku xiran tahay dhaqanka, dakhliga, diinta iyo helitaanka ama waayitaanka kalluunka. Wadamada koonfurta Ameerika waxa la doorbidaa hilibka, halka Bariga fog kalluunku uu muhiim ka yahay. Shaxdan ayaa faahfaahin ka bixineysa cunista kalluunka.

Wadamada horumaray	23.5 kg/head
Wadamada soo koraya	7.4 kg/head
Wadamada Hantiwadaagga	11.3 kg/head
Celceliska adduunka	11.8 kg/head

Dalkeenna cunista kalluunka aad bay u liidataa, inkastoo yididiilo fiican ay leedahay sannadahan dambe. Waxa qiyaas ahaan qofkii ku soo beegmaya sannadkii 0.4 kg/head (1986).

Suuq-geynta kalluunka waxa ugu horreeya dalka Kanada oo sannadkii 1982ki dhoofiyey kalluun ay ka soo gashay lacag dhan 1291 milyan Doollar. waxa soo raaca Mareykanka iyo Jabaan. Wadamada soo koraya Chile iyo Mexico ayaa dhoofintoodu fiican tahay.

Mar haddii taranka dadka ee adduunka oo ah 2% sannadkiiba, uu ka badan yahay heerka korodhka cuntada oo ah 1.5%, kalluunka ayaa ah keydka mustaqbalka lagu xisaabtamayo.

SAMEYSKA KALLUUNKA

Sida ka muuqata, (figure II) waaxyaha ay ka kooban tahay xabbad kalluun ihi waxa ay kala yihiin:

1. Lafo "Qalfoof".
2. Muruq.
3. Maqaar iyo baalal.
4. Uur ku jir sida xiidmaha iyo beerka.
5. Madax ku jir sida maskaxda iyo indhaha.

Hase yeeshee, waxaa waaxyahaas ugu muhiimsan inta muruqa ah oo aan ka badneyn 30 - 40% miisaanka kalluunka. Taas macnaheedu ma aha in inta kale aysan faa'iido lahayn, balse waxa loo beddeli karaa badeecooyin kale oo si toos ah iyo si aan toos ahaynba ugu soo noqda aadamaha sida fish meal.

Muruqa kalluunku waxa uu ka sameysan yahay (inkasta oo ay yara kala geddisan tahay kalluunada) qiyaasta soo socota:

Protein	20%
Dufan	5%
Macdan	5%
Biyo	70%

Kalluunku waxa uu ka protein badan yahay hilibka, waxana la caddeeyey in 100gm oo kalluun ah ay ku jirto 18.5% protein ah, halka hilibka qiyaas taas le'eg laga heli karo 16.5%.

Dhinaca kale proteinka kalluunka laga helo waxa uu dhan yahay 14% proteinka laga helo dhammaan waxyaabaha la cuno.

NOLOSHA KALLUUNKA

Qaybaha Iyo Shaqooyinkooda.

Qolofa: Waxay ka ilaalisaa jeermiska iyo dhaawacyada jirkiisa wax u dhimi lahaa. Dheecaan ayuu jirka kalluunku sii daayaa kaas oo loo maleynayo in uu ka caawiyo dhaq-dhaqaaqinta qolofa iyo in biyaha dhexdooda uu si sahal ah ugu dabaasho.

Baalasha: Waxay ka caawiyaan socodka, leexashada, joog-siga, dib u socodka, is-dheelitirka iyo qumaati u taagnaanta. Kalluunka dheereeya waxa u gaar ah baal dabeed u eg dayax bilow ah, halka kalluunka socodka gaaban leh dabadiisu ay ballaaran tahay.

Indhaha: Woxoogaa wey dhaq-dhaqaaqi karaan, waxna biyaha dhexdooda wuu ku arkaa, inkasta oo meel dheer waxba uusan ka arag.

Dhegaha: Ma laha dalool dibadeed, waxayna dareemi karaan wixii gariir ah ee soo gaara. Shaqada dheghu kuma koobna wax maqalka oo qura ee waa organno dheelli-tira jirka kalluunka.

Ilkaha: Qaar ilko leh iyo kuwo ay ka maqan yihiinba wey jiraan, halkaas waxa laga garan karaa nooca cunno ee kalluunkaasi uu quuto hilib ama caws.

Waafyaha: Kalluunku waxa uu ka neefsadaa waafyaha, waxana ku filan Oxygenta yar ee ku milan biyaha oo qiyaas ahaan noqoneysa 10cc halkii litirba halka hawada aan neefsanno ay ku jirto 200cc oo Oxygen ah litirkiiba. Marka kalluunku uu neefsanayo wuxuu qaataa biyo si uu u dulmiariyo miiqyada waafyaha halkaas oo O₂-ta iyo CO₂ la isku weydaarsho.

Urinta: Kalluunku wax wuu urin karaa waxana shaqadaas u qabta dulalka. Urintu kalluunka aad bey muhiim ugu tahay, waayo waxa uu ku raadsadaa cuntadiisa, waxana uu kaga fogaadaa cadowgisa.

Dheefshiidka: Cuntadu marka ay caloosha gaarto waa la jajabiyaa, waxana loo gudbiyaa mindhicirka, halkaas oo lagu sii shiiday ayaa lagaga nuugaa wixii nafaqo leh, inta kalena debidda ayaa loo qashin saaraa.

Taranka: Badiyaa ukunta dheddigga iyo minida labka ayaa biyaha lagu wada sii daayaa, halkaas oo bacrintu ay ka dhacdo. Waxa sinjiyada kalluunka qaarkood nolosha ay ku bilaabaan lab ahaan, waxayna marka dambe isu beddelaan **dheddig**. Kalluun waxa laga yaabaa inuu bacriyo sinji kale, **hase yeeshee** waxa ka dhashaa ma sii tarmo. Waxa marar dhif ah dhacda in kalluun qura uu mar keliya sii daayo ukun iyo mini.

Kalluunka carjowda leh iyo qaar ka mid ah kuwa lafta leh ayaa ilmuhu ku dhex abuurmaa uurka hooyadiis, kaddib marka dheddigga iyo labku ay kulmaan. Kalluunkaa waxa u gaar ah taran badan oo noolaha kale lahayn. Qaar ka mid ah ayaa mar keliya dhali kara ilaa toban milyan (10,000,000) oo ukumood, hase yeeshee wax yar ayaa ka badbaada dabeecadda qallafsan iyo cadowyada isku xakuma sida ay u kala xoog weyn yihiin.

AQOONSIGA KALLUUNKA

Ma sahlana in noolaha biyaha oo dhan si sax ah loo kala garto, gaar ahaan marka arrintu ay khuseyso sinjiyo isku sifaad dhow. Buugag iyo qoraallo badan aya la diyaarshay si ay u adeegsadaan dadka kalluumeysta, kuwa gada iyo cilmi-baareyaashu. Kalluunka waxyaabaha lagu kala garto waxa ka mid ah:

Midabbada: Waxa kalluunku uu ku kala geddisan yahay midabbada uu Eebbe ku dheehay.

Muuqaalka; Dhererka iyo ballaarka ayaa ah sifooyin kalluunka lagu kala garto. Qaar yar-yar, kuwo waaweyn, kuwo ballaaran iyo kuwo dhuuban intaba wey leeyihiin. Fig. IV.

Madaxa: Waa astaan muhiim ah oo kalluunku ku kala geddisan yahay. Bal u fiirso. Fig. V (a) iyo fig. V (b).

Baalasha: Noocyada halkan ka muuqda ayaa tusaale inoogu filan baalasha kala duwan ee kalluunka. Fig. VI (a) iyo Fig. VI (b).

Indhaha: Goobta ay indhuhu ku yaallaan iyo noocyadoodu waa calaamado muhiim ah. Fig. VII.

Tirada Lafaha Baalasha "Fin spines": Hadday yihiin baalasha dabada iyo kuwa dhabarka, tirada lafahoogu wey kala geddisan tahay kalluunka kala duwan, waana astaan lagu kala garto.

Qashaarka "scales": Tirada qashaarka kalluunka oo laga tiriyo laynka dareenka "lateral line" ayaa iyana muhiim ah.

Calaamad gaar ah: Wax muuqda oo calaamad ah oo u gaar ah kalluunka haddii ay jiraan waa lagu kala sooci karaa, hase yeeshee waa in ay ahaataa mid aan loo geysan.

Waxa dhici karta in la helo kalluumo intaas oo sifaad ah wadaaga, waxa markaas lala kaashadaa nin khabiir ku ah noocaas la baarayo, ama waxa la geeyaa labooratori si analisis loogu sameeyo.

Noocyada Muuqaalka Kalluunka Fig. IV

Noocyada Muuqaalka Kalluunka

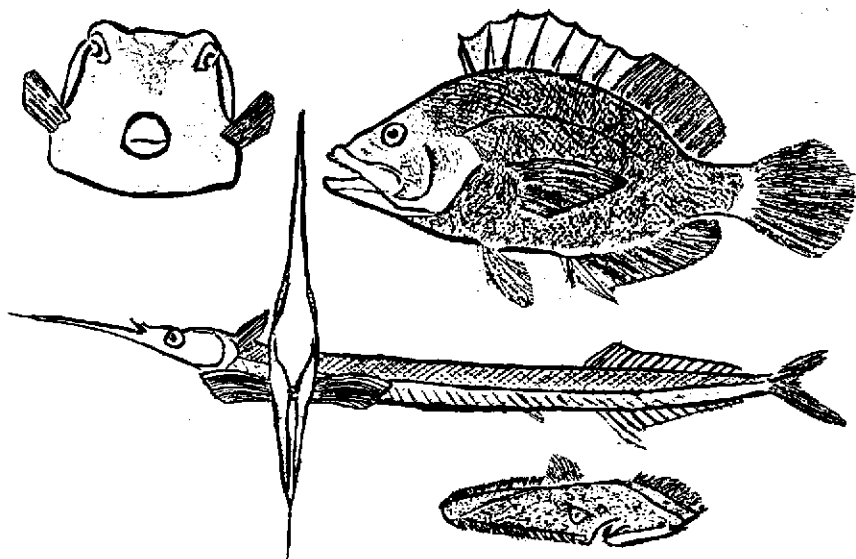
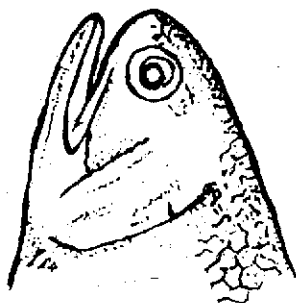
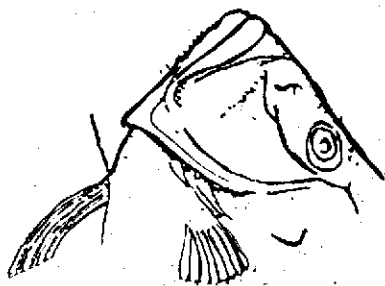
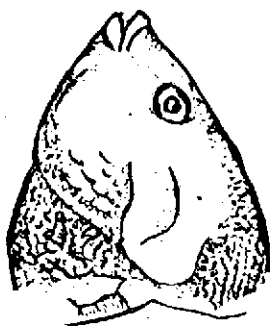
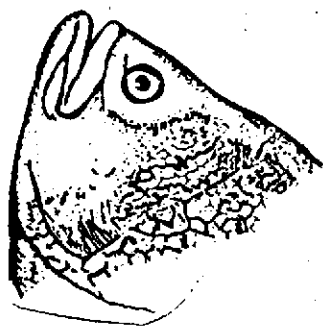
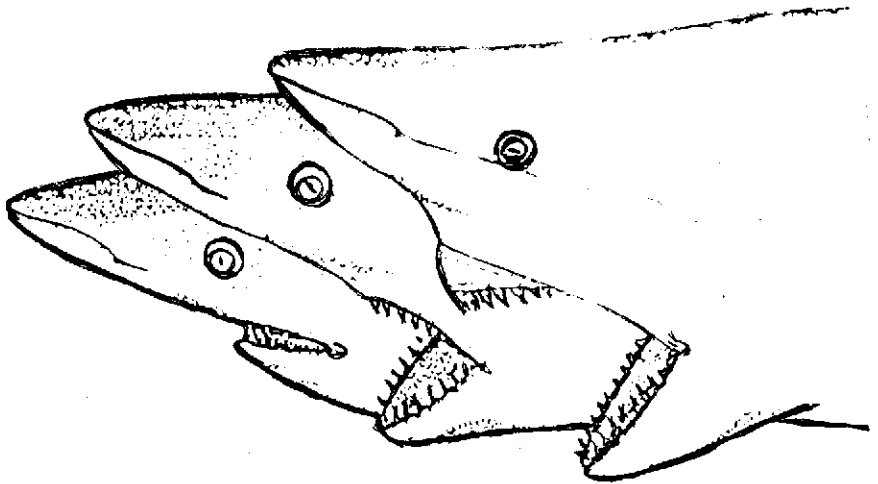


FIG. IV

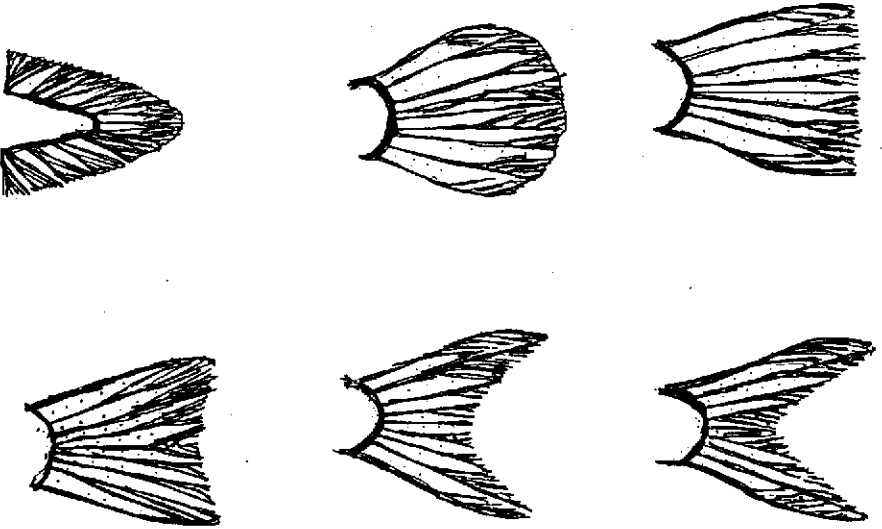
Noocyada Afka Kalluunka Fig. V (a)



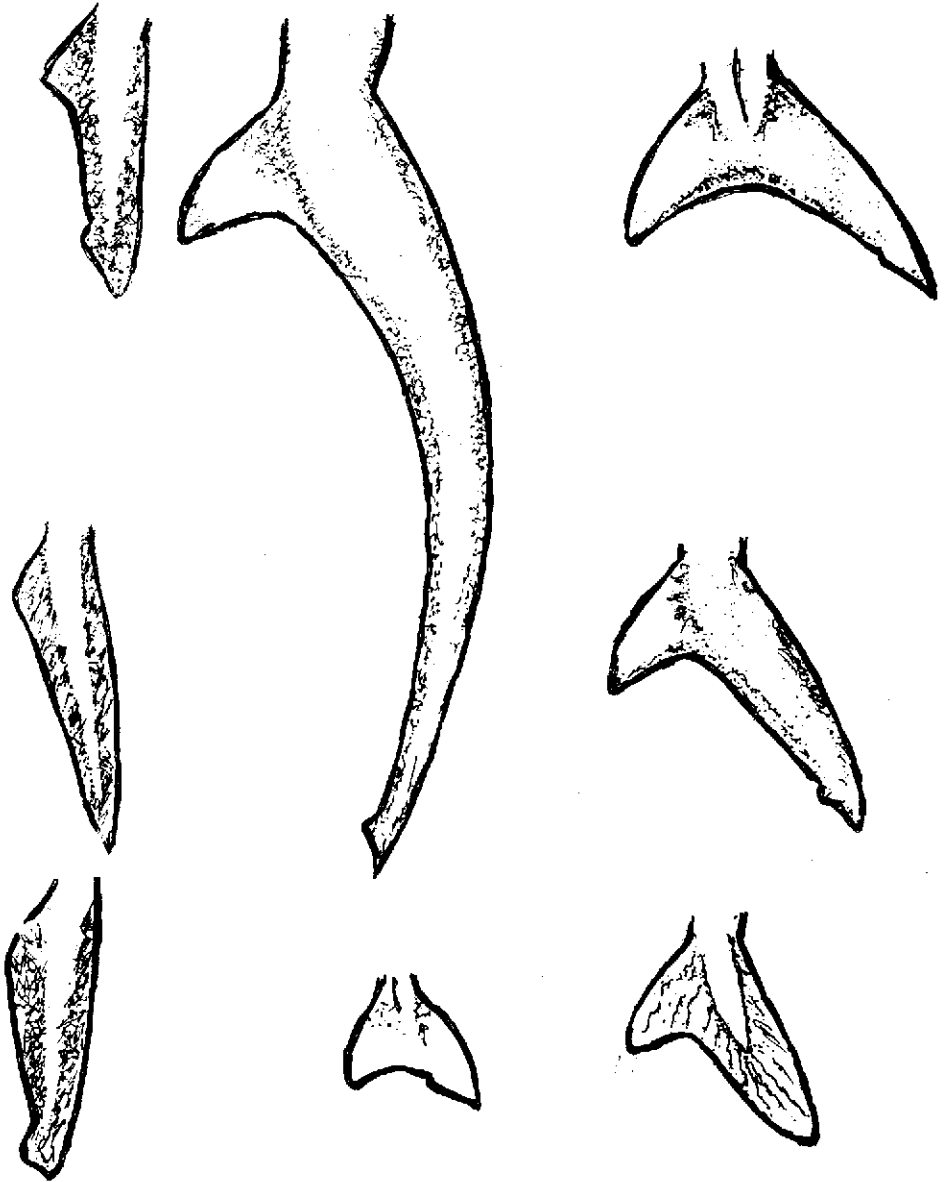
Noocyada Afka Libaax-badeedka Fig. V (b)



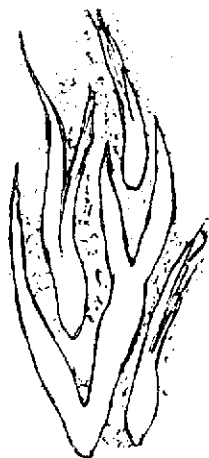
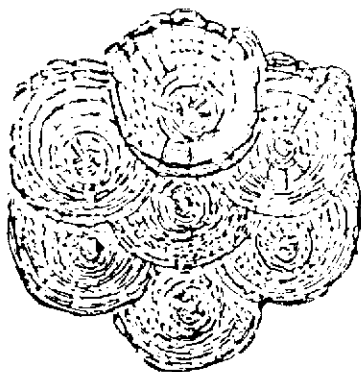
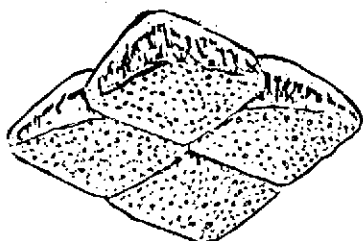
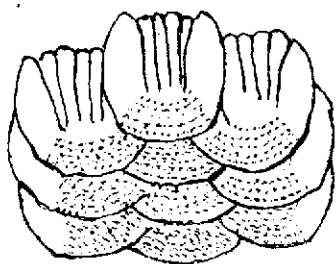
Noocyada Dabada Kalluunka Fig. VI (a)



Noocyada Dabada Libaax-badeedka Fig. VI (b)



Noocyada Qashaarka Kalluunka Fig. VII



MAGAC BIXINTA KALLUUKA

Magacda kalluunka ee dal walba u gaar ah waxa ka dhas-hay dhibaatooyin dalkaas gudhiisa iyo dibeddiisa, taas oo keentay in la wada garan waayo marka kalluun lagaga had-layo doodaha cilmiga ah ama shirarka. Waxa adkaaday in ganacsatadu dalabkooda ama waxa ay rabaan in ay dhoof-tyaan si sax ah u gudbiyaan.

Waxa laysku dayey in magacda Ingiriiska ah la istic-maalo, hase yeeshee iyaga laftooda ayaan ka dhibaato yareyn kuwa kale. Sidaas darteed waxa lagu heshiiyey in magac caalami ah oon dalna lahayn la deegsado.

Magacdaas oo loo yaqaan MAGACDA CILMIGA AH ama "SCIENTIFIC NAMES", waxa habeyntooda u xilsaaran gud-diga loo yaqaan "International Commission of Zoological Nomenclature". Haddii ay dhacdo in kalluun cusub la arko, waxa magaciisa iyo sifaadkiisa laga diiwaan-geliyaa guddigaas.

Runtii ma fududa ama suurta-galba ma aha helitaanka aqoonsiga dhabta ah ee kalluun walba oo ka mid ah in ta ka badan 18,818 sinji ee la shegay in ay jiraan, waayo sinjiyada kalluunku ma aha kuwa aan iska beddelin sidii ay ku dhas-heen ee waxa ay la socdaan isbeddelka joogtada ah ee dabeecadda.

Magaca Cilmiga ah ee kalluunka loo bixiyaa, waxay ka yimaadaan nidaam taxan oo la iskugu raac-faaciyo ama koox-kooxeeyo kalluunka oo loo yaqaan abla-ablayn. Nidamkan waxa markii u horreeysey isku taxlujiyey ninkii la oran jirey Aristotle (322 B.C.) oo xayawaanka u kala qaybshay siddeed kooxood. Kaddib waxa sii horumariyey Carolus Lin-neaus (1707 - 1778).

Abla-ablayntu waxay sahashaa dib u tixraaca asalka noolaha. Haddaba haddii aad heshid magaca cilmiga ee noolaha, isla markaasna aad taqan abla-ableynta, waxa aad halkaas ka ogaan kartaa macluumaad badan oo noolahaas khuseeya, waxaanad ogaan kartaa wuxuu waxtar leeyahay.

Nidaamkani waxa uu caadi ahaan ka kooban yahay toddoba jaran-jaro, inkasta oo mararka qaarkood iyaga la sii kala jajabiyo. Toddobadu waxay kala yihiin: Boqortooyo (kingdom), Phyla (fayla), Gacal (class), Dir (order), Bah (family), Duul (genus), Sinji (species).

Noolaha waxa guud ahaan loo kala qeybiyaa labo boqortooyo oo kala ah: Boqortooyada dhirta iyo xayawaanka (plant & animal Kingdom). Haddii aan sii raacno boqortooyada xayawaanka, waxa loo sii kala jabin karaa 10 phyla. Tobankaas phyla mid walba waxa uu u sii kala baxayaa Gacallo. Haddii aan sii fiirinno Gacallada Phylada Chordata, waxay noqonayaan shanta kala ah:

1. Pisces: Tusaale: Kalluun
2. Amphibia: Tusaale: Raha
3. Reptilia: Tusaale: Diinka
4. Aves: Tusaale: Shimbiro
5. Mammalia: Tusaale: Dadka.

Nibirinka oo markii hore lagu tirin jirey Phylada Pisces ayaa markii dambe la ogaaday in uu maamal yahay. Argoosatadu waxay galaysaa Phylada Arthropoda. Farabadanta iyo duushadu waxay raacsan yihiin Phylada Mollusca.

Shanta Gacal ee phylada Chordata mid walba oo ka mid ah waxay u sii kala baxaysaa dhowr dir oo kiiba uu u sii kala baxayo baho oo laftoodu sii noqonaya duulal ilaa ay ka sii noqdaan sinjiyo.

Waxa nidaamka noocaas ah aan ku matali karnaa adareeska guryaheenna oo warqad kasta oo la soo diraa ay toos u imanayso adareeskaas. Bal ka bogo tusaalaha sida ay isugu dhigmi karaan:

Abla-ablayn		Cinwaan	
Boqortooyo	Animal	Qaarad	Afrika
Phyla	Chordata	Dal	Somalia
Gacal	Telestomi	Gobol	Banadir
Dir	Clupeiformes	Degmo	Hawl-wadaag
Pah	Salmonidae	Laan	X/Taako
Duul	Salmo	Wadada	Kacaanka
Sinji	Clarkii	Guri lamb.	99999

U fiirso, boqortooyo waxay u dhigmi kartaa (Analogy) Qaarad, kuwa kalena sida ay iskugu aaddan yihiin. Magaca cilmiga ee kalluunkaas loogu yeerayo waxa uu noqonayaa "Salmo clarkii". Mid kasta oo jaranjaradaas ahi waxay ka soocaysaa kalluunka kuwo kale, xayawaan waxay ka sooceysaa dhirta, Chorodata waxay caddeynaysaa in araxley yahay, Teleostomi waxay ka reebeysaa wixii aan laf lahayn, sidaas ayey mid walba u sii sifeyneysaa kalluunka ilaa laga gaaro sheyga laftiisii.

Magacda cilmiga ah dhammaan si laatin ah ayaa loo qoraa, waxay doonayaan ha ahaado markii hore. Kalluun walba waxa la siiyaa labo magac oo kala ah kan duulkiisa iyo kan sinjigiisa. Magaca hore waxa lagu bilaabaa xaraf weyn, ka labaadna xaraf yar. Waxa badiba la raacshaa magaca qofka kalluunkaas helay iyo sannadkuu helay sida: Melanogrammus aeglefinus (Linnaeus) 1758.

Dalkeenna magacda kalluunku waa ay kooban yihiin, waxayna tilmaamaan midabkiisa ama qaabkiisa sida agdheere iyo guduudow; qaarna waxay tilmaamaan fal uu kalluunku sameeyo sida Codweyn oo Ingiriiskana lagu yiraahdo Croaker oo macnaheedu yahay guuxe ama reeme. Magacda Soomaaligu ma aha kuwo cilmiyeysan, sidaas darteed yaab ma laha haddii 5 ama 10 kalluun uu hal magac ka dhexeeyo.

Inkasta oo magacda gobolladu ay kala duwan yihiin, haddana xiriir ayaa ka dhexeeya sida ay isugu dhow-dhow yihiin. Cilmi-baarista waxa ka soo baxay 80% magacda labada gobol ee Awdal iyo W-Galbeed ay isku mid yihiin. Dhinaca kale waxa muuqatay in L/Qorey ilaa Garacad magac kalluun oon is-khilaaf badan lahayni ay ka jiraan.

Hobyo ilaa C/Axmed magac isku mid ah aya laga heli kara. Hase yeeshee waxaa suurto gal ah in meelaha qaarkood kalluun laba magac looga yaqaan, halka meelaha kale magac keliya laga haysto, taasina ay keento in loo qaato in magacdu ay kala geddisan yihiin.

Kismaayo iyo Baraawe wey ka geddisan yihiin dalka inti-isa kale, iyaga laftooduna wey kala duwan yihiin. Magacduna waxa ay yihiin Baajuun iyo Barwaani.

Haddii aad u fiirsato magacda G. Awdal, W. Galbeed, iyo Bari waxaad arkaysaa in magac badani asal ahaan ay ka soo jeedo Carabi, sida Makhnus, Qud, Kalbuuf baxri iyo Fuluus. Banaadir waxa ku jira magac Talyaani ah, sida Iskaambo iyo Fangalaati.

Guud ahaan cilmi-baaristu waxa ay soo ururisay magac gaaraya 600, oo tilmaamaya 100 kalluun oo u kala baxa sidatan:

- Kalluunka badda: 70.
- Labaax: 10.
- Kalluunka Webiga: 8.
- Qolofleey: 3.
- Ayax badeed: 1.
- Kuwo kale: 8.

Marka laga reebo kalluunka webiyada iyo qolofleyda, kalluunku waxa uu u kala baxaa sida soo socota:

- Kalluun qareed (Demersal fish): 25.
- Kalluun Madoobe (Pelagic fish): 39.
- Xeeb-joog (Coastal fish): 16.

Tirada noocyada dalkeenna laga heli karaayo aad bey uga badan tahay inta kor ku xusan, hase yeeshee waxa dhacda in ilaa toban kalluun hal magac ka dhexeeyo. Tusaale: Goatfish waxa jirta in ka badan 16 noc, Soomaaliduna waxay u taqaan Labo-garle ama Fangalaati.

Cilmi-baaristu waxay soo bandhigeysaa shax koobaysa magacda kalluunka ee muhiimka ah ama ganacsi galka ah, kuwaas oo si qalad ah meelo badan loogu qorey.

(FISH NAMES)
MAGACDA KALLUUNKA

Woqooyi	Bari	Banaadir	J/Hoose	English Names	Scientific Name
Fuluus	Sucbaan	Sucbaan	Fuluus	Dolphin fish	<i>Coryphaena hippurus</i>
Kalbul baxri	Loolaaq	Ey-maayo	Taada	Shark sucker	<i>Echeneis naucrates</i>
Carabi	Carabi	Caanood	Mkidhi	Mullet	<i>Mugilidae spp.</i>
Qud	Faarde	Shooley	Mutumbu	Needle fish	<i>Albignes hains</i>
Abushook	Caydi	Caydi	Dagaa	Sardine	<i>Sardinella fimbriate</i>
Mukhnuus	Maqnaf	Simibiib	Ujabi	Wolf herring	<i>Chirocentrus dorab</i>
Dawaco	Dawaco	Tixsi-gaad	Nuufi	Indian flat head	<i>Platycephalus indicus</i>
Kumal	Gacoorre	Funni	Fumme	Cat fish	<i>Tachysuridae spp.</i>
Caruusa	Fuur	Maambiyo	Boono	Parrot fish	<i>Scarus ghobban</i>
Siisaan	Ismiir	Saatif	Taasi	Rabbit fish	<i>Siganus spp.</i>
Labo gadhle	Labo garle	Fangalaati	Imkooma	Goat fish	<i>Mullidae</i>
Xilwa	Xilwa	Xalaaawi	Kuuku	Jack pomphret	<i>Formio niger</i>
Sakhlad	Silqo	Taqo ama Silqo	Takaa	Cobia	<i>Rachycentridae</i>
Caqaam	Ganaad	Aluuso ama	Kisumba	Baracudda	<i>Sphyraenidae</i>
		Subsaalim			
Gaxaash	Gaxaash	Cagoole ama	Tanguujaafa	Emperor Scavenger	<i>Lethrinus nebulosus</i>
		Dhuuban			
Afdheere	Afdheere	Miraamir	Borasimbo	Long face emporor	<i>Lethrinus miniatus</i>
Cawrad	Tunbuur	Shuure gale	Mkidhi	Mullet	<i>Liza nebulosus</i>
Cursin	Dhocdhocle	Birbirow	Kaawe	Red Stripped sea bream	<i>Argyrops filamentosus</i>
Ximaari	Dhocodhocle	Xabkoole	Ki-oofta	Yellow finned sea bream	<i>Acanthopagrus tatus</i>

Basali	Gaadoowe	Birbirow	Kungu-sabaana	Barred silvery sea bream	Cheimerus nufar
Faras	Faras	Daanbiri	Sulsuul	Sail fish	Istophorus platypterus
Faras	Canbarshe	Daabiri cadde	Sulsuul	Black marlin	Makaira indica
Ukumoolle	Gaadoowe	Diirmoole	Majinos	Barred flag-tail	Kuhlia taeniurus
Faarde	Ukumoolle	Ukumoolle	Nkeeko	Soldier fish	Holocentridae sp.
xaarcun	Faarde	Kharaare	Ma-una tumbaku	Half-beak	Hemiramphus far
Siisaan	Xaarcun	Dhawanbe	Kitaara	Yellow marked butterfly	Pomacanthridae
Siisaan	Siisaan	Kaxan	Kulunguwe	Surgeon fish	Acanthrus leucosternon
Siisaan	Siisaan	Khomboro	Kuuju	Banded surgeon fish	Triostegius
Marafad	Siisaan	Kaxan geeste	Kulunguwe	Brown unicorn	Naso spp.
Shoox	Marafad	Aroos maanyo	Ta-ii	Moorish idol	Zanclus cornutus
Muraykh	Shoox	Shoox	Ibaawa	Five spot herring	Hilsa kele
Baaq	Murakh	Aanishow	Gonna	Milk fish	Chanos chanos
Dameer	Baaq	Oongi	Gonna	Hardy head silverside	Pranesus pinguis
Dameer	Fuundo	Kinkooy carbeed	Fubbe fubbe	Waistcoat triggerfish	Balistoides conspicillum
Burqac	Fuundo	Kinkooy	Linga	Bride triggerfish	Sufflamen fraenatu
Hasar	Afwaax	Samaduul	Kooko	Fourthreads threadfin	Eleutheroneus tetradactylum
Xaddaas	Somanaa	Sooray yaxaas	Tanda kole	Threadfin bream	Nemipterus tolu
Subul qaad	Iiko adag	Quuqle	Nguru	Two bandedsea bream	Acanthropagrus bifasciatus
Deerik	Baaq	Dool dool	Kibooma	Lizard fish	Saurdia tumbul
Shirwo	Codweyn	Laqanto	Nguru	Croaker	Sciaenidae spp.
Seynub	Taraaqad	Yuumbi	Nguru	Barred spanish Mackerel	Scomberomorus commersoni
Tabad	Shirwo	Dhiiglow	Nguru	Frigate mackerel	Euthynus affinis
Baxriyah	Bicreed	Seynub	Kiboma mjana	Streaked spanish mackerel	Scomberomorus plurilineatus
	Tabadiin	Jeeder	Nguru	Yellowfin tuna	Thunus albacares
	Baxriyah	Baxreed	Nguru	Wahoo	Acanthocybium solandri
	Gabaraare	Shanlo	Ki-uufa	Sickle fish	Drepane punctata
	Gabaraare	Kebelimaanyo	Iyedi	Bat fish	Platax pinnatus

Sinagub	Gabaraare	Muumbow	Kooko	Spade fish	Tripteron orbis
Booraad	Lifaas	Caari-joog	Ikuuji	Pinjalo snapper	Pinjalo pinjalo
Booraad	Booraad	Booraad	Kungu	Two spot snapper	Lutjanus bohar
Boxaarah	Cangub	Cangub	Baafa	Blackspot snapper	Lutjanus fulvi flamma
Qardabo	Boxaarah	Sholi-boorad	Yambeyni	Humpback snapper	Lutjanus gibbus
Cayji	Qardabo	Tartabo	Kaws	Speckled snapper	Lutjanus rivulatus
Fuur	Cayji	Cayji	Shoogo	Blood snapper	Lutjanus sanguineus
	Fuur	Ilwaa	Boonno	Blackfin wrasse	Bodianus billunulatus
Deero	Sinaguban	Cangub	Khonday	Blue banded snapper	Lutjanus kasmira
Dabaal-qat	Sinaguban	Sannuuro	Nguru	Skipjack	Katsuwonus pelamus
Korow baalle	Dabaal-qat	Meylon		Whipray	
Summaan	Korow baalle	Buwaay	Habshiya	Flying fisher	Exocoetidae spp.
Goshir	Summaan	Waayeer	Teva bojo	Bleeker's grouper	Epinephelus bleekeri
	Aseebo	Yaaquur	Bufaadi	Brown spotted grouper	Epinephelus tauvina
	Guduud	Dumaashi	Shambaaro	Tomato bass	Cephalopholis sonnerati
Caallo	Caallo	Caallo		Purple rockcod	Epinephelus flavocaeeruleus
	Mako	Mako		Half-moon rock cod	Epinephelus grammatophorus
Doorab	Doorab	Jabto or baroole	Banru	Spotted leather skin	Scomb. commersonianus
Duusi	Afkatoob	Madax dhagax	Nrili	Pompano	Trachiontus blochii
	Shoofe	Shiiraan	limbe-iiimbe	Djeddaba crevalle	Alepeş djeddaba
Shiiraan	Shiiraan	Shiiraan	Seese	Pennant trevally	Alectics cillarlis
	Shaah	Khoomaar	lisi	Longfin cavala	Carangoides armat
Nimiraani	Nimiraani	Nimiraani	Nabraan	Tiger shark	Galeocerdo cuvieri
Abuseef	Saraaciimo	Miishaar	Papang	Sawfish	Prisic pectinata
Muqaram	Muqaram	Geesle	Papanki	Hammerhead shark	Sphyrna Zygaena
Colcool	Colcool	Godgodo	Mbeeya	Lesser guitar fish	Rhinbatus annulatus
Subli	Samater	Milmilo	Khumi	Soupin shark	Galeorhinus galax
	Dummad	Baalcadde	Sumbugwe	Hound shark	Mustelus canis

Dasyatis jenkinsi
Actobatus narinar
Squalus megalopes
Stegastoma varium

Pointed-noised stingray
Spotted eagle ray
Bluntnose spiny
Leopard shark

Yaman gofe
Shateedi
Yaheera
Guguye

Safan
Somir
Miyaso
Farnuukh

Safan
Garfaad
Shakhawis
Dhidar

Rabiish
Deyratul baxri

MAGACDA KALLUUNKA GANACSI GALKA
(COMMERCIAL SPECIES)

SOMALI	ENGLISH	SCIENTIFIC
Caydi	Sardine	Sardinella spp
Simbiilig	Wolf herring	Chirocentridae
Dhiglow ama shirwo	Kawakawa	Ethunus affinis
Subsalim, ganaad, caqaam	Baracuda	Sphyrænidae
Derik, Yuumbi, Taraaqad	Spanish Mackerel	Scomberomorus Commersoni
Tabad, Tabadiin, Jeedar	Yellowfish tuna	Thunus albacares
Laqanto codweyn	Croaker	Sciannidae
Sucbaan, Fuluus	Dolphinfish	Coryphaenidae
Sannuuro	Skipjack	Katuwonus pelamis
Carabi, Caanood	Mullet	Mugilidae
Saafit	Rabbit fish	Siganus
Labogarle, Fangalaato	Goat fish	Mullidae
Samaduul, Tinle	Threadfin	Polynemidae
Funni, Gacoorre	Catfish	Tachysuridae
Doorab, Baroole, Jabto	Leatherskin	Scomberiodes commersonianus
Daabbiri, Faras	Sail fish	Istiophorus platyterus
Summaan/Gadiir	Grouper	Serranidae
Gaxash	Emperor/Scavenger	Lethrinidae
Yaaquur/Aseebo	Brown spotted grouper	Epinephelus tauvina

..... caa / Bayaad	Trevally	Lutjanidae
Madax-dhagax	Pompano	Carangidae
Maambiyo .	Wrasse	Trachintus africanus
Geesoole	Hammerhead shark	Labridae
Miishaar, Seefle, Saraciimo	Sawshark	Sphyrna Zygaena
Nebaraan	Tiger shark	Pristis pectinata
Sakhlad, Silqo	Cobia	Galeocerdo cuvieri
Tartabo, Qardabo	Speckled Snapper	Rachycentron canadus
Booraad	Two spot snapper	Lutjanus rivalatus
Cayje	Blood snapper	Lutjanus bohar
Seynab	Streaked spanish mack.	Lutjanus sanguineus
Safan, Baalalay	Rays	Scomberomorus plurilineatus
Baalcadde	Requiem stark	Myllohatiformes
Miraamir, atdheere	Long face emperor	Carcharhinidae
Caari joog	Pinjalo snapper	Lethrinus miniatus
Caallo	Purple rock cod	Pinjalo pinjalo
Argoosto, Iskaambo	Lobster (spiny)	Epinephulus flavocaeruleus
Ayax badeed, Gaambiri	Shrimp	Panulirus ornatus
Diin, Qubo	Turtle	Penaeus monodon
Homboro	Dolphin	
Carsaanyo, Xarshaasho	Crab (Swimming)	Charybadis edwardsi
Abeeso, Magunge	Honey comb	Gymnothorax favagineus
Duusho	Squid	

Whale

KALLUUNKA (BIYAHA MACAAN)

Sharfato	Tilapia
Luusiya	Carp
Agongo	Sinadot
Ballan	Eutropias
Shaarub	Clariotus
Waambooy	Clarius
Malley madoobe	Cat fish (Freshwater)
Heeray ama fummi akaam	

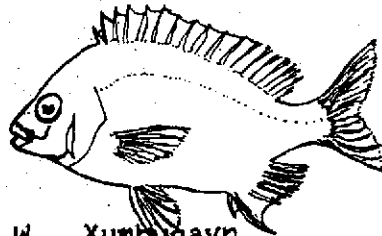
WAXYAABO KALE

Canbar	Ambergris
Luul	Pearl
Sadaf	Pearl shell
Bocool	Shell

FIIRO:

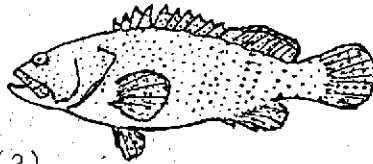
QASHAR: Waxay tilmaantaa dhammaan kalluunka leh qashirka (Scales)

(1)



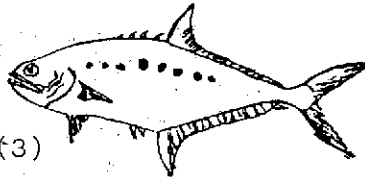
W- Xumbugayn
B- Gaadoowe
BN- Birbirow
JH- Kingu Sbana
ENG- Sea Bream
SCI²- Sparidae

(2)

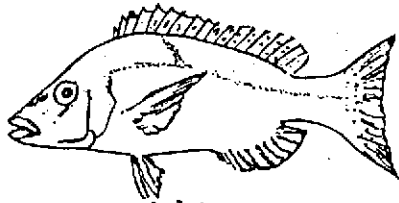


W- Summaan
B- Summaan
BN- Summaan
JH- Habshia
ENG- Grouper
SCI- Serranidae

(3)



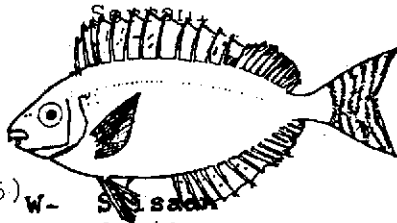
W- Dooraab
B- Doorab
BN- Jabto Calasey
JH- Banru
ENG- Spotted Leather
SCI- Scomberoides
commersonianus



(4)

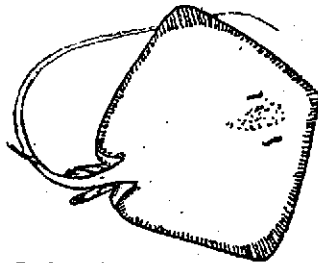
W- Qardabo
b- Qardabo

BN- Tartabo
JH- Kaws
ENG- Snapper
SCI- Lutjanidae



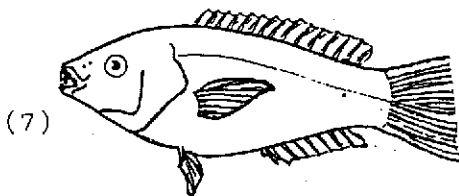
(5)

W- Sanna
B- Ismir
BN- Saafit
JH- Taasi
ENG- Rabbit Fish
SCI- Siganus spp.

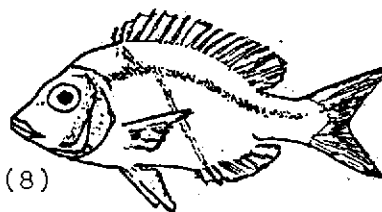


(6)

W- Rabush
B- Safan
BN- Safan
JH- Shuvi
Eng- Ray
SCI-



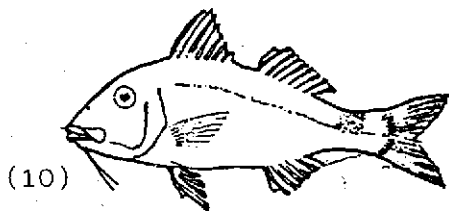
W- Caruusa
B- Fuur
BN- Maambiyo
JH- Boono
ENG- Wrasse
SCI- Labridae



W- Gaxash
B- Gaxash
BN- Dhuubaan
JH- Tangu Ijafa
ENG- Emperor
SCI- Lethrinidae

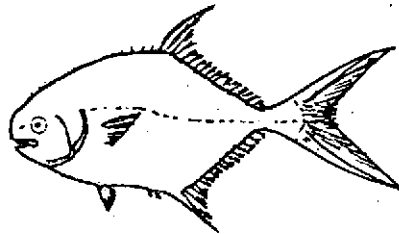


W- Qawqab
B- Gambiri
BN- Gambiri (Ayax Bad.)
JH- Kamba Kamba
ENG- Shrimp
SCI-



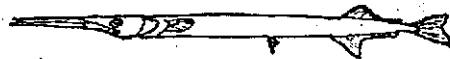
(10)

W- Labo Gadhie
B- Labo Garle
BN- Fangalaati
JH- Imkoma
ENG- Goatfish
SCI- Mullidae



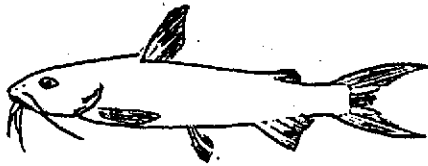
(11)

W- Duusi
B- Afkatoob
BN- Madax dhagax
JH- Nrili
ENG- Pompano
SCI- Trachiontus blochii

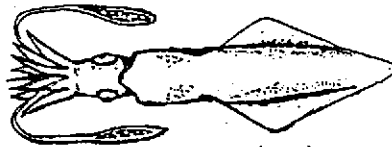


(12)

W- Qud
B- Faarde
BN- Shooley
JH- Mutumbu
ENG- Needle fish
SCI- Albenes hains



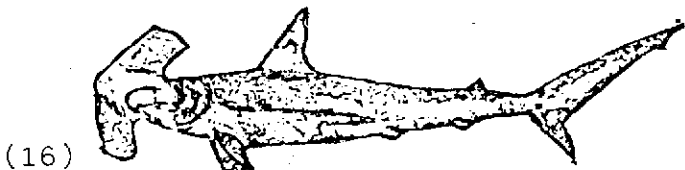
- (13) W- Kumal
 B- Gacoorre
 BN- Funni
 JH- Fumme
 ENG- Cat Fish
 SCI-



- W-W-- - (14)
 B- Sinni
 BN- Duusbo
 JH- -
 Eng- Squid



- (15)
 W- Deerik
 B- Taraqad
 BN- Yuumbi
 JH- Nguru
 ENG- Spanish Mackerel
 SCI- Scomeromorus
 commersoni



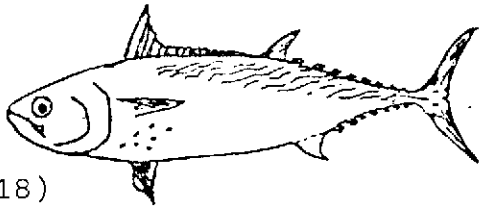
(16)

W- Muqaram
B- Muqaram
BN- Geesle
JH- Babanki
ENG- Hammerhead Shark
SCI- Sphyrna zygaena



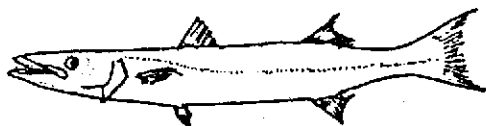
(17)

W- Faras
B- Cambarshe
BN- Daambiri
JH- Sulsuul
ENG- Marlin
SCI- Istiophoridae



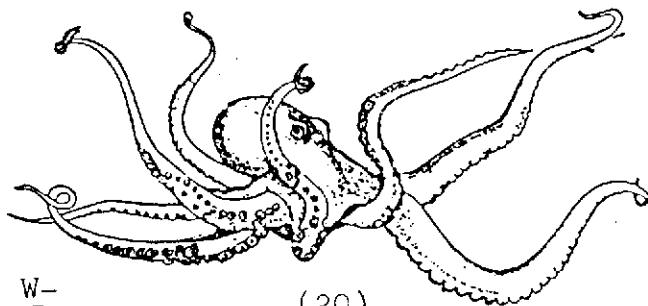
(18)

W- Shirwo
B- Shirwo
BN- Dhiiglow
JH- Kibooma
ENG- Frigate Tuna
SCI- Euthynus affinis



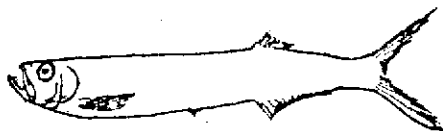
(19)

W- Caqaam
B- Ganaad
BN- Aluuso, Subsalim
JH- Kisumba
ENG- Baracuda
SCI- Sphyraenidae



(20)

W-
B-
BN- Farabadan
JH-
ENG- Octopus
SCI- Polypus vulgaris

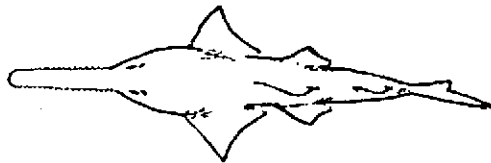


W- Mukhnus (21)
B- Maqaf
BN- Simbilig
JH- Ubabi
ENG- Wolf Herring
SCI- Chirocentrus dorab



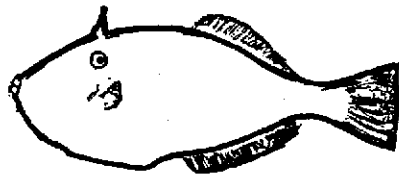
(22)

- W- Subul Qaadi
- B- Baaq
- BN- Dool Dool
- JH- -
- ENG- Lizard Fish
- SCI- Saurida tambul



(23)

- W- Abuuseef
- B- Saraacimo
- BN- Miishaar
- Jh- Baban
- ENG- Saw Fish
- SCI- Prisis pectinata



(24)

- W- Dameer
- B- Buundho
- BN- Kiingoy
- JH-Tumbula
- EN-Trigger Fish
- SC-Balistidae



- W- Kalbul Baxri
- B- Loolaaq
- Bn- Ey-maanyo
- JH- Taada
- Eng- Sucker Fish
- SCI- *Echeneis noucrates*



- W- Fuluus
- B- Sucbaan
- BN- Sucbaan
- JH- Fuluus
- ENG- Dolphin Fish
- SCI- *Coryphaena hippurus*



- W- Sakhlad
- B- Silqo
- BN- Silqo, Taqo
- Jh- Takaa
- ENG- Cobia
- SCI- *Raciycentridae*

DHACDO NAADIR AH

Soo caarinta neberigu ma aha mid caadi ah, balse waa mid yaab leh oo ka wareerisay dadka cilmi-baarista isku shuqliya.

Saacaddu markay ahayd 19:15, maalintii 1.11.86, waxa xeebta Seylac ka soo caariyey Neberin tiradiisu dhammeyd 22 xabbo. Neberinkaas oo ahaa mid dhal ah oo nooca loo yaqaan "PILOT WHALE" waxa ugu weynaa midka dhererkiisu ahaa 5.35 mitir, kuwa kalena waxay u dhexeeyeen 3-4 mitir. Wey dhacday in Nibirin uu soo caaryo, hase yeeshee weli tiro intaas le'eg lama soo sheegin.

~ Su'aalaha ah muxuu nibirinku u soo caariyaa? Jawaabo badan ayaa laga baxshay, inkasta oon weli la isku raacin jawaab qura oo cilmiyeysan. Dadka qaarkii waxay ku tilmaamaan in nibirinku uu naftiisa naco oo uu isdilo "Suicide". Kuwo kale waxay leeyihiin xeebta ayuu yimaadaa si uu ugu nasto uguna xoqdo. Qaar kale ayaa sheegaya in maskaxdiisu qaldanto oo markaas uu garan waayo meesha uu marayo. Ma ahee ayey qaar leeyihiin waddooyin beryo hore uu mari jirey ayey waqtiga iyo dabeecaddu beddeshay ama badihii ayaa ku wasakhoobey oo uu ku noolaan waayey, iwm. Si kasta ha ahaatee weli jawaabta waa la sugayaa.

Nibirinka oo ah noolaha ugu weyn ee dunidan maanta ku nool, waxa qaar ka mid ah "Blue whale" dhererkiisuna gaaraa 30 mitir iyo cules dhan 150,000 Kg ama 150 tan. Sidaas darteed waxa aad loola socdaa xaaladdiisa si xummaaneysa oo welwel ku heysa hay'adaha u xilsaaran sida "International whaling commission".

Ciddii la kulanta ama maqasha nibirin ka soo caaryey xeebta Soomaaliyeed ama waxyaabo kale oo la garan waayo, waxaan ka codsaneynaa in uu la soo xiriiro wasaaraddan, isaga oo wax alla wixii faahfaahin ah ee uu heli karo soo raacinaya, sida meesha lagu arkay, waqtiga, tirada iyo nooca haddii uu garan karo.

BIBLIOGRAGHY

Waxa hoos ku taxan liiska qoraallada iyo buugta loo kaalmeystey kala garashada kalluunka iyo magacdiisa.

1. **Barashada Magacda Kalluunka (1980)**

Waxa ku qoran 110 magac oo kalluun ah oo u kala baxsan sida ay nool yihiin oo kala ah: kuwa biyaha sare ku nool iyo kuwa biyaha hooseba.

2. **Edible Fish In Somalia (1983)**

86 magac oo isugu jira Soomaali, English iyo Scientific ayuu koobayaa qoraalkani.

3. **Local iyo Scientific Names of Fishes collected on the Coast of Somalia (1952)**

Wuxuu ka kooban yahay 19 xashadood. FAO ayaa diyaarisay kaddib markii ay cilmi-baaris ku sameysay xeebta Soomaaliyeed. Qoraalkani wuxuu isbarbardhigayaa magaca Soomaaliga, English iyo Scientific.

4. **Qoraal Gaar ah (1986)**

43 magac oo Soomaali, English, Scientific ah ayaa lagu diyaarshay.

5. **Fishes of the Indian Ocean (19)**

Buuggan waxa lagu daabacay dalka Jabaan, waxana ku yaal sawirro midab leh iyo tilmaamaha kulluun walba.

6. **Common Fishes of Southern Africa (19)**

7. **Coastal Fishes of Southern Jaban (19)**

8. **FAO Catalogue Books (One set)**

9. **FAO Identification Sheets (Zone 51)**

10. **Colour Posters.**

Waxa Qoray: **SAMARON CUMAR GEEDI**

QIIMAHA

Sh. So. 100