

Chcñ ngyis yci pl enAkñGagTenemKgÁ



karGPiDñZenemKgÁsréI x 2
Ex]sPa qñM 2003



KN³kmkaTenemKg

CvctN hgv̄sȳc̄l pl enAk̄GagTen̄KgÁ

karGPiDn̄enemKd̄sr̄l x 2
Ex] sPa q̄l 2003

e) aHBunp Sayen AraCFanPMBj naEx] sPaq 12003
eday
KN³kmkarTenomKgA

ÉksarenHdkRsgec j BÉksarrbsel akbNt davlt kd (Coates D). el akRsl Gt eBA (Ouch Poeu)
el akRsl Gb rataNa SntorataNa (Ubolratana Suntornratana) el ak egjn faj Tg (N Thanh Tung)
nig el ak shfavg; viravong; (Sinthavong Viravong) 2003. }Cvchning visy CI pl enAkjGagTenomKgA
karGPiDAnTenomKgAsrl x2 KN³kmkarTenomKgAPMBj 30 TB½

KN³kmkarTenomKgA
RbGbsM 1112 mhavflmnlgs 364
PMBj RBHraCaNacRkkm&a
Gml 3 mrcs@mrcmekong.org

BN³Fkar³ el akbNt Rkls)aLÚ (Dr. Chris Barlow) nigel akRsl Gan bsb; (Ann Bishop)
BN³Fkarrg³ el akRsledel o bl (Delia Paul)

rbbPaB³ Rkls)aLÚ byvh PltFWdaehh EPcDuybhSb hthn yh hths eyaeyn ynesn shaNu
pnSavat Cn an pgRs(GandWp/ esnnK vanhsal h nig mU nFBPBel akedlm, lFmcati.

erobrag nigtM brbbPaBeday³ el ak sUsavat

ral mtningkarGtFb, ayEdl)anel kmkbgoj enAkjGtB TenHKDakMtrbsGknBnphl ;
ehlyBManqibBa@UTsSh³rbsKN³kmkarTenomKgA Lly.

FnFanCI pI rbsGagTenømKgáRkam KðarPBmYdðsluebbkjócNamFnFanCI pI TenøanaenAel I BPBel ak . FnFanenHmansarsMandI ëkarRTTgCvtrbsRbCaCncH 50I annak; EdI rsenAk ðépGag . edayminRtñEteFH GayRbCaCnrab;I annak;TTñ)anR)akcINU BkareFnsaT karcBaRtl nigkarl kdþ pI RthigpI ensaTepSg²eTotbaNñet bñFnFanCI pI EfmtaRbPBRbñtGndManshBKKat; eTotpg . eTaHCatamkarRsavRCavrbsKN³kmkarTenømKgðanbgjøj faFnFanCI pI enAmanstñPaB I ¥ kðday EtvanguERbRbW yagqabRbñshebBñankarRKbRKgeGay)an I ¥ nigral ëkarGPvDññosylsVnana enAETeFH GaybHBal dI CvtBBk varlstñhgrkCateTotenah .

enAk ðGtbTCabnþTænH GknBnþI kCasINheLþfa sarsMansrbsFnFanCI pI enAk ðGagTenømKgáRtñEkarEvkEj kBPakSaKëGay)an I tI hediñ, karBardI CvtCH . GknBnþJñBerkahBPaKSapgEdrBkar KN³kmkarTenømKgðhgdI CvtCHEdI bñhmkBlisVCI pI nigk thepSg²eTotkñCaral yFankarNñanaEdI KV RbkanyksMñEFGaymannñPaBdI CvtCH .

GtbTenHkñCaGtbTGPvDññagTenømKgðana KñhanbñNgbgjøj nVI TþI énkarRsavRCavkjñyeFH Gay mitþkGanTbTAGacyl)anedaygayRSñ . kðkare)ahBnþSayGtbTenH KN³kmkarTenømKgðan sgñmfakarpSBþSaynVI TþI énkarRsavRCavenHñgrksayyagTU MU ay RBmTaFH GaymankarTTñ SÁI eGaykanEteRcheLgnUsarsMansrbs;TñigRbPBFnFanbsva ehlyngRtñEkarGPvDññagNa eGaymancíPaB .

eyh Rkeshesn
naykRbtbtþ
KN³kmkarTenømKgá

esckþfgGNKd

raykarN³HCai Tþl)anmkBKMagvayt³ FnFanC l p l TenomKgÁ_(AMF) énkmpFC l p l rbsKN³-kmkarTenomKgÁ K³Magvayt³ FnFanC l p l TenomKgÁ_(AMF))anB³EpkæTæl bñlyksavRCavmY c³hdþmanerobrabxageRkam . sþEfgGNrGKNyagRCai eRCAcBalkar bnkarTrbsm³KbRKg m³þrdjal m³þpeckeTs nigbk³l k³mykarenARKbsnlyT³Gs; d l kargarkmpFC l p l énKN³kmkar TenomKgÁ

naykdæC l p l ³GKarel x186 m³havifRBHherathn RbGbsHtel x582 P³Bj kmca.

sñlyksavRCavFnFanvarst³higrk³at³ RbGbsHtel x9108 TRkgevogot³ saFarN³rd³Ca-
manit RbCaFbetyüLav.

sñlyksavRCav nigGPiDæl p l Tk³ab] tþfan³ p³sdaklyy³ya RskGæPF emog
ext³ tþfanlRbeT³ef.

vT³as³RsavRCava³b,kmTD³ GaKarel x2 vifgl³Dlj CU Rskel x1 TRk³gh³mlj RbeTs
evotNam.

rþPaBT³Gs)anpl³eGayeday R³ks)aLit³Woyvh P³tFWdaeh³ EP³Dybl³hsb h³hán y³m h³ms
eyæyn y³nesn sþanU p³nsaat C³nan pg³rsú G³ndW p³lesn nk vanhSal h nig
m³l nFBPB³l akedh, F³ncati. Rkah³T³Laypl³C³hday hathill³kk d³lt D³tn essa tarer//
nigrbh ev/ xall

matkarer0g

xmsarsieg,

esckph

varClcMlenAkjGagTenemKgA

eh tGyanCaClcmansarsMan?

kareBobobFobnUsarsManlychMrvagFnFanCI pl Tksab nigTkeRb

RbPBFnFanCI pl nigkareF1GaClkmpbsya

tMaTbsyavlb, kmp

karKlmKlhgel ClcmTksabenAkjTenemKgA

sInPAb nigTmarel bNlRbePTknt;

etkar) amnNal ClcmRtu) andakbBaPeTAkjkarRkbRkvsiyCI pl ehlyrWA?

]TahrNekKGnut h^{3/4}

esckph nldan nigGnsasn^{3/4}

bBdEok

xmsarsegb

bN̄T̄en̄B̄k̄p̄ n̄R̄bePTC̄/c̄M̄k̄j̄k̄t̄m̄ȳx̄; Ed̄ Gac̄R̄b̄ĒC̄ḡK̄īC̄ām̄ȳn̄R̄b̄B̄T̄k̄ēb̄p̄S̄ḡ² eTot. en̄H̄ēd̄aȳs̄ar̄v̄āk̄īāp̄k̄m̄ȳēn̄P̄āb̄s̄āl̄ān̄r̄b̄s̄R̄b̄B̄f̄ēḠk̄l̄l̄s̄l̄ Ten̄T̄ān̄ēh̄C̄āT̄ēĀp̄p̄ ; n̄Ūs̄ār̄s̄M̄āȳāḡF̄M̄ḡd̄l̄ v̄īs̄%̄C̄p̄ Ēt̄v̄īs̄%̄ēn̄H̄r̄t̄Ū)ān̄ēk̄p̄ t̄l̄ ēḠāȳēn̄ĀT̄āb̄ēL̄ȳ.

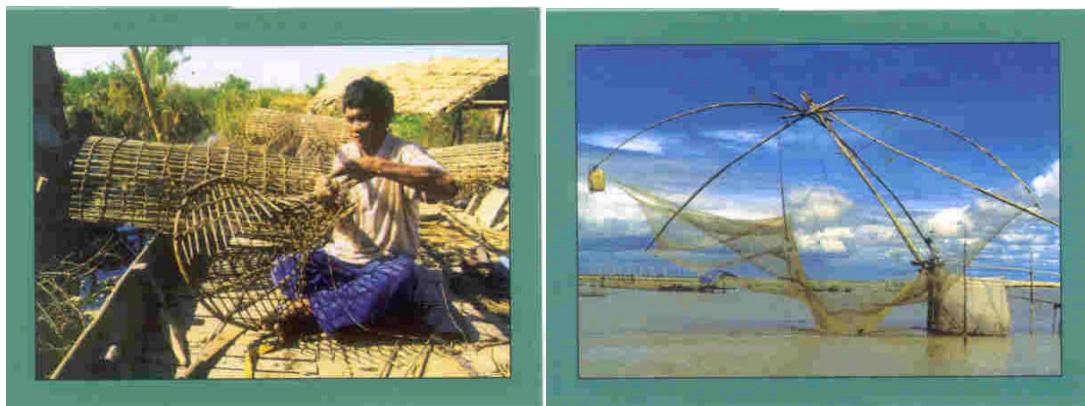
F̄n̄F̄ān̄C̄p̄ r̄b̄s̄ḠāḡT̄ēn̄K̄ḡK̄īār̄b̄P̄b̄p̄ p̄ d̄s̄ūb̄p̄t̄m̄ȳk̄j̄c̄N̄ām̄F̄n̄F̄ān̄C̄p̄ T̄ēn̄ā n̄āēn̄ēl̄ B̄P̄B̄ēl̄ āk̄. R̄b̄ēP̄F̄n̄F̄ān̄ēp̄S̄ḡ²K̄īd̄R̄b̄ēT̄k̄ēd̄ Ed̄ m̄ān̄ēĀĒk̄, r̄²n̄ḡT̄k̄ēn̄ḡR̄b̄C̄āC̄n̄P̄āk̄ēr̄ch̄ r̄s̄ēn̄Ā Ed̄ n̄ān̄Ḡāȳm̄ān̄k̄ār̄c̄l̄ r̄h̄b̄s̄R̄b̄C̄āC̄n̄k̄j̄s̄k̄m̄P̄āb̄ēn̄s̄āT̄k̄j̄t̄m̄ȳȳāḡx̄s̄; v̄īs̄%̄ C̄p̄ Ēb̄b̄]̄s̄S̄āh̄k̄m̄F̄M̄k̄l̄m̄ān̄ēL̄b̄ēn̄Āk̄j̄ḠāḡT̄ēn̄H̄ēd̄ b̄ēn̄d̄aȳs̄ār̄R̄b̄C̄āC̄n̄P̄āk̄ēr̄ch̄C̄ā k̄s̄k̄r̄ n̄īḡC̄āḠēn̄s̄āT̄ k̄ār̄c̄l̄ r̄h̄b̄s̄B̄k̄k̄āt̄K̄P̄āk̄ēr̄ch̄B̄N̄ān̄ēB̄j̄ ēm̄āḡēL̄ȳ n̄īḡR̄b̄R̄)̄ās̄ēt̄]̄b̄k̄r̄N̄āt̄āc̄b̄ēN̄H̄. R̄b̄s̄h̄ēb̄F̄n̄F̄ān̄R̄t̄Ū)̄ān̄ēF̄ḠāC̄l̄k̄m̄h̄l̄s̄k̄N̄t̄; C̄v̄īn̄ḡf̄ȳc̄H̄ēd̄ n̄āM̄ ēḠāȳ)̄āt̄b̄ḡ»̄k̄s̄k̄j̄k̄ār̄ēF̄n̄s̄āT̄ f̄ȳc̄h̄n̄Ūk̄M̄C̄l̄P̄āb̄s̄ēn̄Ā n̄īḡm̄ān̄p̄ l̄b̄H̄b̄āl̄ d̄z̄ār̄k̄k̄C̄āT̄ēT̄Ā d̄l̄ ēs̄d̄ēl̄S̄ḡh̄.

P̄āB̄R̄b̄ḡR̄b̄ȳ)̄t̄ŪḠāȳm̄ān̄k̄āh̄l̄h̄āt̄ēn̄ēb̄l̄ N̄āēF̄k̄ār̄s̄n̄b̄ān̄B̄īs̄%̄C̄p̄ ēn̄Āk̄j̄T̄ēf̄l̄ k̄ār̄ ḡār̄ēn̄āH̄t̄Ū)̄ān̄d̄k̄R̄s̄ḡēc̄j̄ m̄k̄B̄īs̄%̄C̄p̄ s̄m̄T̄. k̄ār̄ḡār̄ēn̄m̄m̄n̄āT̄k̄s̄²K̄k̄j̄R̄b̄k̄ār̄ēd̄ K̄t̄ēḠāȳk̄t̄s̄M̄āl̄ C̄ār̄ch̄. k̄ār̄k̄M̄āh̄ḡC̄ār̄ch̄c̄B̄āR̄b̄ēP̄T̄C̄/c̄M̄ēd̄ ēk̄t̄m̄ān̄ēL̄b̄ēn̄Āk̄j̄ v̄īs̄%̄ r̄h̄m̄ān̄k̄ār̄ēF̄ḠāC̄l̄k̄m̄h̄l̄s̄R̄b̄m̄āN̄ n̄īḡk̄ār̄R̄b̄)̄ās̄r̄āl̄ R̄b̄ēP̄T̄]̄b̄k̄r̄N̄ās̄āT̄x̄s̄c̄, āb̄; ȳāḡN̄ām̄īj̄ k̄ār̄k̄M̄āh̄ḡd̄)̄t̄F̄p̄b̄t̄c̄B̄āR̄b̄ēP̄T̄C̄/c̄M̄ēd̄ ēn̄Āk̄j̄T̄ēn̄K̄ḡK̄N̄b̄l̄ m̄k̄B̄k̄t̄x̄āḡ ēr̄k̄āv̄īs̄%̄C̄p̄ d̄l̄t̄C̄āk̄)̄āt̄b̄ḡC̄l̄k̄d̄F̄ḡ s̄ām̄b̄k̄m̄n̄R̄b̄B̄f̄ēḠk̄l̄l̄s̄l̄n̄īḡk̄ār̄f̄ȳc̄h̄b̄r̄m̄āN̄ n̄īḡK̄N̄P̄āb̄T̄k̄.

ral̄d̄N̄āH̄s̄āȳd̄m̄ān̄R̄b̄s̄T̄P̄āb̄ēn̄Āk̄j̄v̄īs̄%̄C̄p̄ l̄K̄b̄k̄B̄ḡd̄N̄āH̄s̄āȳsh̄R̄k̄b̄R̄k̄ḡ "Co-management" Ed̄)̄ān̄p̄S̄b̄ȳs̄āȳ n̄īḡk̄B̄ḡn̄ūt̄b̄m̄ān̄R̄b̄s̄T̄P̄āb̄ēn̄āt̄ām̄l̄l̄ d̄ān̄. ral̄R̄b̄B̄ēḡ Ēc̄k̄F̄n̄F̄ān̄Ḡp̄īd̄)̄t̄l̄ k̄B̄ḡd̄āk̄ēḠāȳēR̄b̄)̄ās̄ēn̄āt̄ām̄T̄ēn̄K̄ḡĀ n̄īḡT̄k̄ēḡd̄ēT̄ōt̄ -L̄t̄ēn̄s̄āt̄! C̄ȳs̄M̄ d̄l̄k̄ār̄t̄t̄B̄n̄īt̄ǖēn̄k̄ār̄b̄k̄s̄T̄R̄b̄R̄)̄ās̄F̄n̄F̄ā n̄īḡC̄āv̄f̄s̄ās̄h̄m̄ān̄s̄k̄h̄n̄B̄l̄ P̄āb̄ b̄l̄t̄k̄j̄k̄ār̄Ḡp̄k̄s̄R̄b̄ēP̄T̄C̄/c̄M̄. Ēt̄āt̄H̄ȳāḡN̄āk̄ēd̄aȳ k̄ār̄ḡēn̄H̄t̄Ūk̄ār̄Ḡāȳm̄ān̄k̄ār̄s̄āv̄C̄āv̄ b̄ēn̄t̄ēt̄m̄ān̄ḡēF̄k̄ār̄C̄M̄ ēḠāȳ)̄ān̄T̄Ū M̄Ū aȳ.

vis³ var/b, km/b, hankarRKbRKgedh, eosvagnUkarCH\TBI d | RbePTCl/cM. RbkarEdl sM
 xankjgclNambBaTmenHKkar)atbgEdnCmkGaRs xedaykarbW asbjtMndesneTACakEng
 eFVar/b, km/j nigkarENnaYagTU MU ayeGayerBR)asRbePTRtbRkARSikCamYRbePTIBCRTl
 kRskEd;l Caeh tboNhl eGay)atbgedaypjl nBnsitPaBenesenTc. vFankarNanRb
 sTPabShbeB|xagmrxhmankarGnut pM Fanc, ab; sMberBR)asel hal karvaytM m
 eB| eFkarENnaMly.

esckjsnandem,gEdl RtU)anbgaj GBRbePTCl/cMtenAkjTenomKgKfaral pl RbeyaCnEdl
 TTV)anbcD,nBlsyCpl TenefH GayesdkicmanPaBrigmall nigmankarEvkEj kBPAkSaKaell
 Eptsgm edh,karBarnigeFUGaykatbnbydI karxtxatRbBgeGkLsl karTTV sAeGay)an
 kanEtxdjeLgnUPaBCaKEs(jkneya)ayGPiDAnFn Fan Kb,BRgogeGay)ankanEtxdjkoech
 EfmeTotnUral karBPakSaEvkEj kedh,EFUGaymanciPaBdI RbePTCl/cMtenAkjTenomKg



esckþóðn

enAkjRbB¹TenomKgÁ manBBkC l p l dachRbePTEd l eKGacTaj ykp l Rbeyacn². tam
kar)anRbmaN)anbgj eGayeXlj famanRtRbmaNCa 120RbePTEd l @U)aneKeF³ eTaHCa
manEt 10 eTA 20RbePTEd l s⁴ Cagekk⁵ day. bcl⁶nñH mankarcabGarm⁷yagx⁸ jmkell l
RbePTCl/c⁹ nigkarEfrkSarvaeGaymancrPaB. eTaHCa RbCaCnPaKeRchEtgEt y l favis¹⁰
C l p l Cakark¹¹mK¹²ngd l RbePTCl/c¹³ edaysarEt karpSB¹⁴SayBkareF¹⁵GaCl/kmp¹⁶RsrbmaN
kareRbR)as nUral] bkrN¹⁷sc, ab; karcab; T¹⁸RbePTmheRbR)as; nigkarx¹⁹xatn²⁰FanRKbRKgCa
T²¹TA. et brógenHBitEdrr²²? Gtb²³TenHbgj eGayeXlj fakarBitvis²⁴C l p l K²⁵inEmn
GáRkkd²⁶tenaHeLly p²⁷eTAvjj vaRbEh l Camit²⁸b²⁹l s³⁰beF³¹Gaymannin PaBRbePTCl/c³²
Ed l rsenAkj³³TkenAkj³⁴TenomKgÁ

ral RbB³⁵GeGk³⁶l³⁷ten³⁸BkF³⁹mant⁴⁰ yagF⁴¹gs⁴²RbePTCl/c⁴³ nigmni⁴⁴SRKbr⁴⁵Ed l rs;
Bj⁴⁶Epkel RbePTCl/c⁴⁷l⁴⁸l⁴⁹PaBr⁵⁰senArbsB⁵¹Kat; Cærly⁵²BBkTen⁵³EtgEt)atbgn⁵⁴
RbePTCl/c⁵⁵rb⁵⁶sva enAeB l Ed l bris⁵⁷TT⁵⁸rgeRk⁵⁹aleday sarEtt⁶⁰ukareRbR)as⁶¹T⁶² nigFnFan
det⁶³eTotmanch⁶⁴kanEteT⁶⁵l⁶⁶g. enHK⁶⁷akarBitCakEsg⁶⁸NasEd l)anekeitmaneL⁶⁹genATkEng
NaEd l k⁷⁰nhRbCaCnekhel⁷¹bx⁷²eF⁷³GaymankarGPiD⁷⁴agTen⁷⁵abrh⁷⁶pgEdr.

CaT⁷⁷TAinhákarBPBel akEd l epht⁷⁸eTAel Ept⁷⁹bris⁸⁰Tenk⁸¹g⁸²mankarFak⁸³ll. RbB⁸⁴GeGk⁸⁵l⁸⁶ten⁸⁷a
eRchRtU)anb⁸⁸l⁸⁹bj⁹⁰ k⁹¹visal PaBd⁹²F⁹³gEd l RTgRTayEbbenh⁹⁴F⁹⁵GaybraC⁹⁶yd l karKa⁹⁷arn⁹⁸
BBkvarCat⁹⁹Gaymane¹⁰⁰PaBkj¹⁰¹ld¹⁰²mrsbNam¹⁰³ly. bBaenHbN¹⁰⁴l eGaymanp l v¹⁰⁵akyag
F¹⁰⁶F¹⁰⁷l mn¹⁰⁸SRKbr¹⁰⁹Ed l karr¹¹⁰senArbsB¹¹¹Kat Bj¹¹²Epk¹¹³eTAel PaBs¹¹⁴l¹¹⁵enFnFan¹¹⁶varst¹¹⁷l¹¹⁸V nig
rk¹¹⁹cati. s¹²⁰PaBd¹²¹Kal¹²²fakénFnFanT¹²³sabBPBel akRtU)aneKktRtaT¹²⁴CaÉksar¹²⁵)anyag
Rt¹²⁶Rt¹²⁷l¹²⁸k¹²⁹genaHTen¹³⁰eRchRtU)aneKerRbR)ask¹³¹ky¹³²visal PaBEbbenh¹³³Ed l B¹³⁴vaQbEl g)aneK
s¹³⁵l faCaTen¹³⁶Totehly.

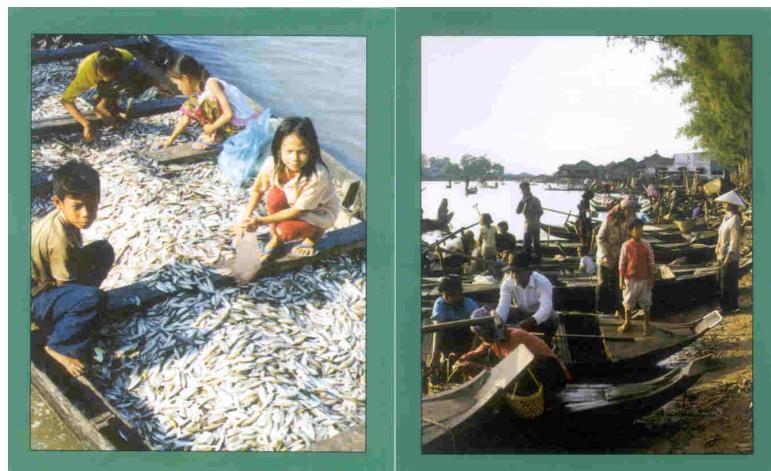
¹ Coates, 1995a

² For example, Dudgeon, 1992

C~~h~~^homhaCnm~~y~~^l eXlj fa k~~j~~^cNamvarbris~~n~~rb^sBP^BeI ak K~~h~~^mansm~~T~~^{ng}CaBessK~~B~~^Bk paffd I CaTCM~~s~~^MBB~~k~~^Cl~~c~~^MrtU)anK~~h~~^mK~~h~~^gyagF~~F~~^Ffb~~mt~~. karBiter~~gen~~H~~B~~^manman P~~s~~^tageL^{ly}. tamBit kar)atbgRbePTvarCatT~~l~~^sabK~~h~~^manch~~h~~^rchCago~~l~~^lNas;

Th~~ñ~~^{ly} S~~G~~^BRbePTEd I)andacB~~C~~ RbePTEd I k~~B~~^gTTV rgeRk~~f~~^fak; nigRbePTEd I gayn~~g~~^gTTV rgeRk~~f~~^fak Ed I)anc~~l~~^k~~j~~^bBarkhmrbsG~~g~~^kkar IUCN S~~G~~^BRbePTRthano~~g~~^gkg K~~B~~^manman RbePTRt~~T~~^TkeRb NadacB~~C~~eL^{ly} eb~~r~~^bobeFobCam~~y~~RtT~~l~~^sabK~~h~~^mand I eTA 96 RbePT ÉeNaH. kar)atbgRbePTRt~~T~~^TmenhbBa~~k~~^eGay~~e~~^eXlj fa karK~~h~~^mK~~h~~^gteTAe I RbePTC^l~~c~~^MK~~h~~^manch~~h~~^rch enAk~~j~~^bbris~~h~~^hT~~l~~^sab -r~~b~~^bPaBTI 1!. tamkarcabGarm~~N~~^NenAk~~j~~^bB~~k~~^hmk^tRtaeGay~~e~~^eXlj fa manm~~U~~^UPa~~K~~^RahRbePT^lsenAT~~l~~^lkeRbCaRbePTC^lpt^lB~~C~~eday sarkareF~~G~~^GaCl^l~~k~~^m~~h~~^lRbmaN k³/4 bEn~~h~~^hc~~B~~^BHRbePTRt~~T~~^T~~l~~^sabvij karktRtabg~~j~~^j eGay~~e~~^eXlj fak~~h~~^hanEt^m~~y~~PaKém~~b~~^bN~~h~~^hED I TTV rgeRk~~H~~^Hebbenah. CaT~~h~~^{TA} bBa~~C~~^Cach^gEd I ekltmanGaRkkb~~h~~^henAk~~j~~^bT~~l~~^sabK~~h~~^marx~~l~~^lxtEp~~k~~ bris~~h~~^h-kar)atbgEdnC~~l~~^l nigkar~~b~~^b ; minEmnkareF~~G~~^GaCl^l~~k~~^m~~h~~^lsk^l~~N~~teL^{ly}.

manm~~U~~^U daneKal m~~y~~ch~~M~~^MEd I CasT~~d~~^dymc~~B~~^BHe~~p~~^p T~~l~~^sab. Bit Nas; kary I d~~g~~^gbg~~g~~^goj eGay~~e~~^eXlj faFnFanCl^l~~s~~^sRT~~l~~^sabGacRtU)aneKeF~~H~~^HGaymannirn~~b~~^bPaB. kareF~~H~~^HGayman n~~n~~ⁿPaBenHK~~m~~^mnakel Ept^bbec^RT^l~~s~~^lly b~~h~~^hamTareGayman~~m~~^mndig nigkareb~~b~~^bcit^b kic^Rbg^bERbgd^b Makk~~K~~^KbgRtU)aneKcabep^bshreL^bbyij n^bUambN^bTenEd I)anx^btxat edayTTV)aneCaKC^byageRchRkasERk l ehlyEdr. CaeKal s~~M~~^Manch~~B~~^Bb~~B~~^BenH enAk~~j~~^bN~~h~~^hbeTsk^bg GP^bDA^bmych^b)ans^bdg^becj n^bukard^bg^bkan^btercheL^bg^b2 G^bsarsManénvis^bCl p^bl T~~l~~^sabC~~B~~^BHC^bVPaBr^bsenArbsR^bCaCnenAtamCnbT.



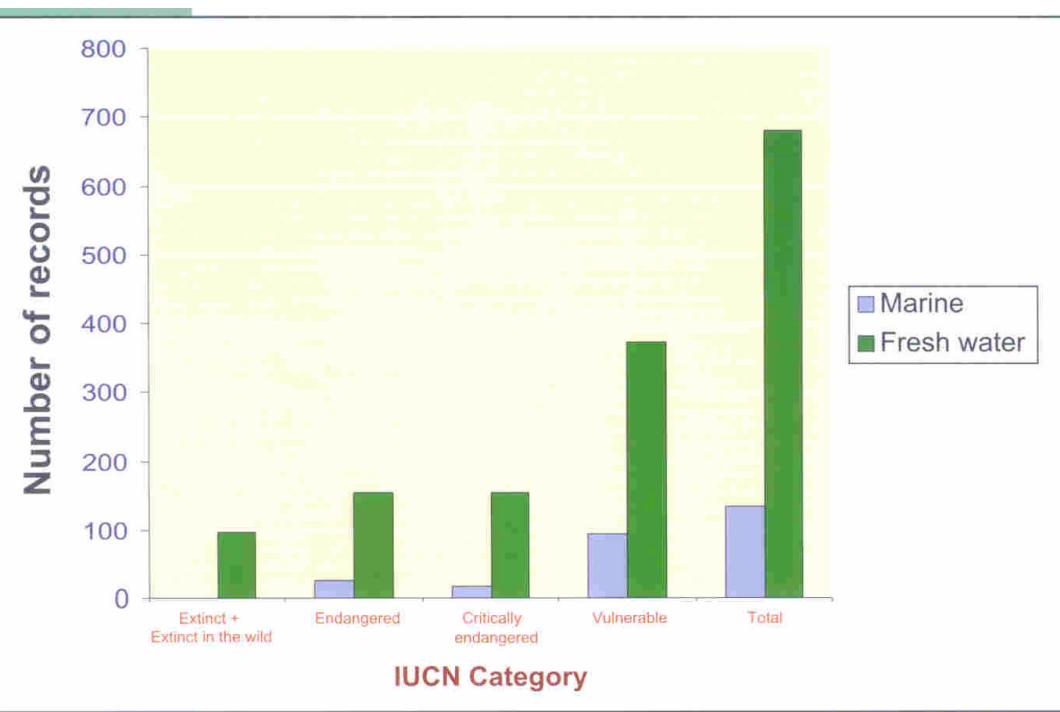
et IUCN : Clic ?

dayEpkel GnüsBalsBI RbePTC/saRsþM qM 9923 RbePTC/saRsþM -ClicM
mannkyfæ

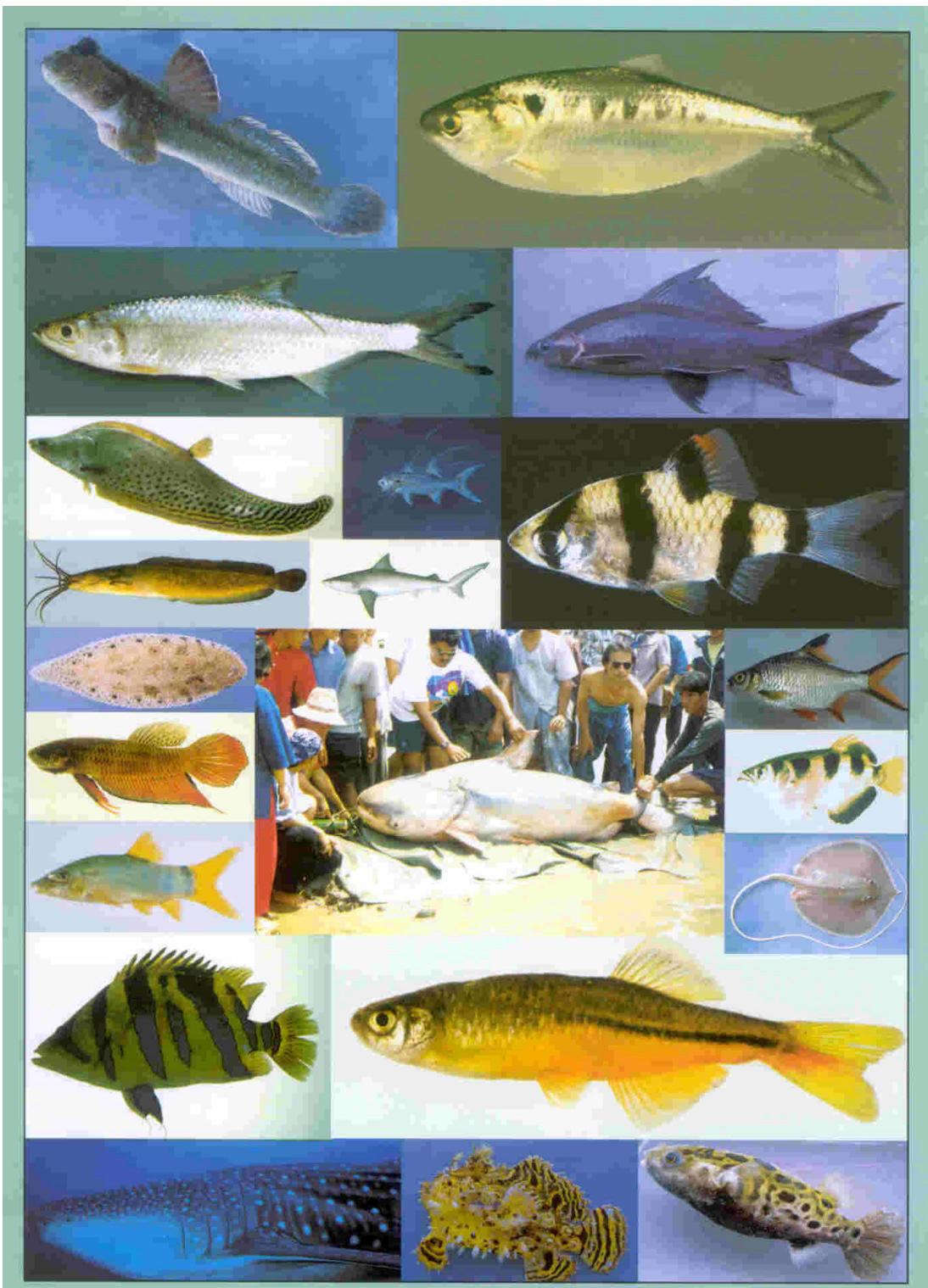
: {karERb@N rbssrl3manClitTaGsBRKbmCððan rhlTaj vt ITTA (inter alia) mnusS
el ak smRT nigRbBþeGkLlSITkdeTeTotRBmTaPabsaMabseGkLlSIEDI Caepkmy
rhlbBaPTaPabxusKænAkjRkm nigPabxusKævagRbePTCamVnigRbBþeGkLlSIV}.

eh tððlechely PaKeRchvaRKanEtCachMénPabxusKædI GaceklmaneLþrvagstV
nigrkÇatiedayrhTajPabxusKænesenTcenAkjRbePTEmkly -] TahrNæðCa3
PabxusKænesn (genes) EdI manenAkjGosmKænRbePTstVnigrkÇati
nigPabxusKænRbBþeGkLlSIV] TahrNæðCa3

N DTK OM 14.1.2011 MILO PTPTU LI QW



RbPbTH 3 CMRbePTRtenAkjþBþkhmrbsGgkar IUCN SþbrisónTkérB nigtksab
-2001 |



ErbsM eday³] TahrN ehRtkis²KäCaRchRbePTEd l cab)anenAk öjTenomKgA

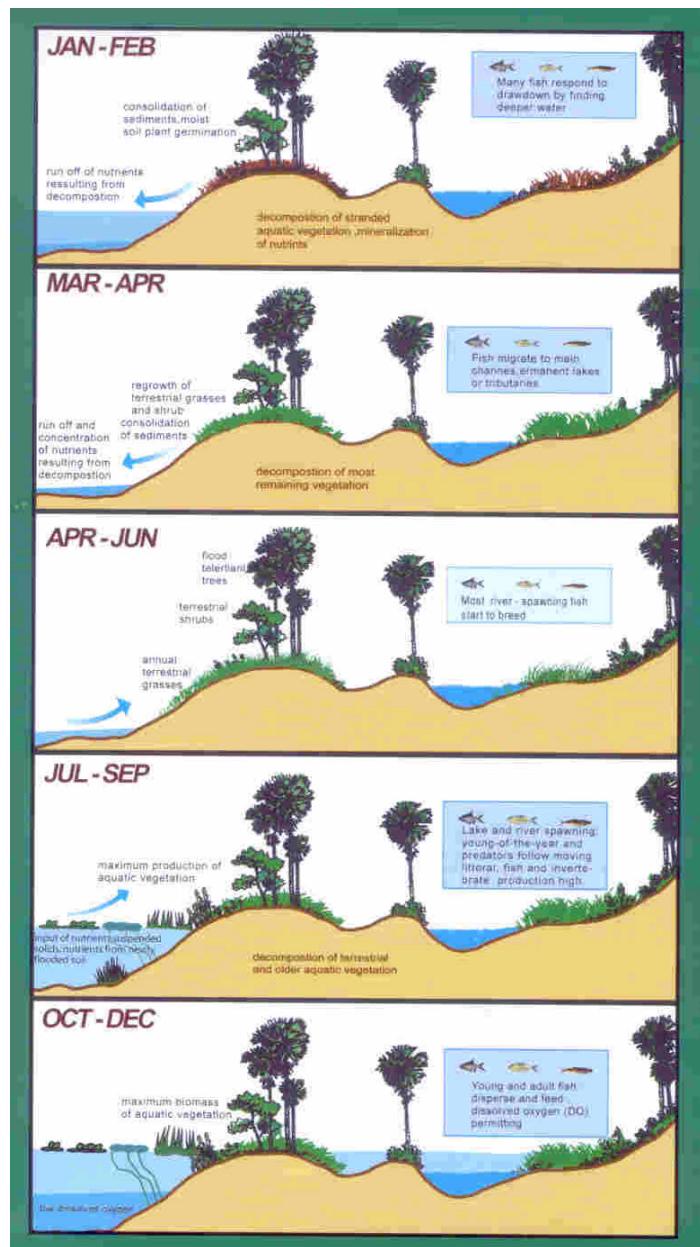
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yagehac NasmanRtcmh 1200 RbePT n̄Gacmanrhldl eTA 1700RbePTÉeNahEd l kBg
rsenAkjGagTenomKgÁ PaBxs KénRbePTaGSenHrtU)anbḡj enAkjrbPBTl2. PaBxs
Ebk KáxalRtU)anbḡj pgEdreTAtamRkmenrak̄cati nigvarls tV vaCakarcaNacNasEd l RtU
eFkarktsMaseGayeXlj fa }visXCI pI { enAkjTenomKgBjEpkPaKeRchminRtmEtRtl
beNñHET KñHtaRbePTrk̄catingstU)eTotEdl RtU)aneKeFIGaCI/kmp CaKEsþpI itpI Cag
30PaKryKJnanmkBFnFanEd l mnEmnCaRtl. eTaHcakarsksaeFIantictVénAelLykRbBak;
eGayeXlj fabBKstVhigrk̄catTahenHKñAmancñherch nigmansar3SManxalNas;

KñHénPaBxs KñHsensH KjPaKeRchGaRsXyedaysarPaBsallRbBjGkLñbs;TenomKgÁ
TenonigédrbsyamanRbPBTrkBDñnPñhyhlgqkatCaerchikEngmñngFalkU eTasmRT. PaB
bñbñHénGakasFatupthisaRsjsNñndl ngl ñhleFjGayRKbEdnCmk tamdgTenmanRbePTvarl-
stVhigrk̄catrsenAyageRchedayesEtBjGackNt)an. éRB l icTkCarbePTCmkrñsidangisHñ
cñlsmñbCvtrsenTahLay. PaBsñHñenHKñtU)aneKrkeXlj dltKñenAdñnpáfRtBk.

enAtambñTennycñhdltCaTenomKgEdl TTl rgnUGakasFatmñg KñHl karERb®l éndU-
kal rbsvaeFI GayekheLbyagrh ñnUCñkFmçati. karekltnaneLbxagel ñnlptU)aneKkt;
SMal eXlj manPaKeRchenAtamval Tñabl icTk. Cærogral gñmisal PaBénTkCmñ;TenomKgÁ
Cñj eGayeekltnaneLbyageRchnUBBkvarts tV nigvarlk̄caténAkjGag. TkCmñkñdeltéGay
manpgEdrnURbePTeRB l icTkñenARKb,TkEng nigeTAtameB l evl a. karERb®l kñltmaneLbj
pgEdreTAtamqñtameB l evl a visal PaB nigry3eB l énTkCmñ; ral bñbñHñ Farasa®Fmçati
enAkj nigcenHqñmñ2KñmansarsMansñbFjGaymanl Hñdl RbBjGkLñsl BitCayl ;
)anfa thñPaBERo®l rbsRbBjGkLñsl-rñtFarasa®þ kñkareFI GaymannñnPaBd l ;
Cl/cMenAkjTenomKgKñmansarsManxalNas; ral kargarGPiDññAkjRbBjTeno
CanicRaI KñtU)aneKeFI Gaymanl kñN3gayRsI -SamBaþ rñdaybñPœcal d l karERb®l
rbsRbBjGkLñsl ral jbsKñGSenHbḡj eGayeXlj faCakarKñmKñhgdñFgbñtldl ;
nñhþPaBrbsvarCl/sa®þnAkjTenomKgÁ

edayBicarNad | Sar³sManrbsbN | TenenAk^{ijdl}n®TBk PaBxHxatk^jkareFH Gaymannirhp-
PaBd | yarCvchMenAmanenAeLy. bBaenH RbEh | edaysarEtkarRsavRCav nigEfrkSarenAman
kar | Makerech ehlyenAk^{ij}RbB^{je}GkT^{je}sabmanPaBRssbR^{je}g^{je}CagRbB^{je}Gku^{je} smRT.



r³PaBTB³ K^{je}nkarkERb ®V énRbB^{je}Gk^{je}TAtamrdUka Ed | eFH Gayekltelgnl
PaBxis²K^{je}yageRchd | TCMks^{je}bBB^{je}varls t^{je}higvarlk^{je}Çat^{je}TAtamvt^{je}TikCHn;

³ Coates, 1995a

eh tGyanCaCicKmansarsMan?

CicKmansar³s Mansar³beh tp | CaeRchyag³

← t kijkareRbRasph :

CicKtU)aneKerB)asedayph | eFdamGahar nigCaTMij Ed | pl itecj mk
BFnFanFmCatingCamU dñenkskmPaBeTscrN^{3/4}

← t kijkareRbR)asedayRbeyal

CicKbegiteGaymanRbBkGkLslu nigmarrbsya. mkgarenHCYd | mnisS
RKbrEd | rsenABEpkeTAel RbBkGkLsluTahenah. kargarTahGsenHGac
catTlkCa }esrPaB{ Ed | minGac | kd)anenAtamTbSareLy.]TahrN^{3/4}
Srt³manCvit CaeRchRbePT)anrhcENkkjvisyC | pl edayBkvaGaceFca
cINRtl. -rbTI 4! BBkstV | I gpa RKabFBati nigrkCatdTeTot
ehlyeRBeQ)anCYEfrkSaRsTabdl nigeFI Gayman | hTikeTotpg. enAkj
TenkarrhcnkrbsCicKd | karvidAnhoscINGaharkmansarsManNasEdr
-edh,CakarBnul dl dNhiDAnhoscINGahar Sthemll RbGbenATBhnb;.

← t eClers

ral RbePTstVrkcatTahLay enAeB | Ed | BkvasbdacBceTahly KntU)at;
bgCaerogrhit. eTahkjgvFINakday karpitBcenHeFI GayRbePTCManRkay
)atbgGsnVITPaBedh, Tlaj ykp | RbeyacnRcVitrsenArbsBBkTahenah.

← t eml eXjj 1/icRtsal nigGafkMa

CicK nigFmCatkItgEtRtU)aneKcatTlkCa {vt^{3/4}} edaymantll BitR)akd
rWl kNTNamlyEd | fitkPaBRtRtUpal xurbbsBkva. vtTahenHCatNag
eGaytll B)aneRbR)asmlyEd | ph mkeGaymnissel akvij tamry³karbegit
eGaymanb, Fm sasnai³ll , 3.

tamkareRbR)asTahLayEd |)anktRtakngmk bgj eGayeXjj fatll énkareRbR)aseday
ph | eTAel karCicKtMbeFcadINGahar R)akcNU nigRbeyacnRcVitrsenArbsBBkTahenah;

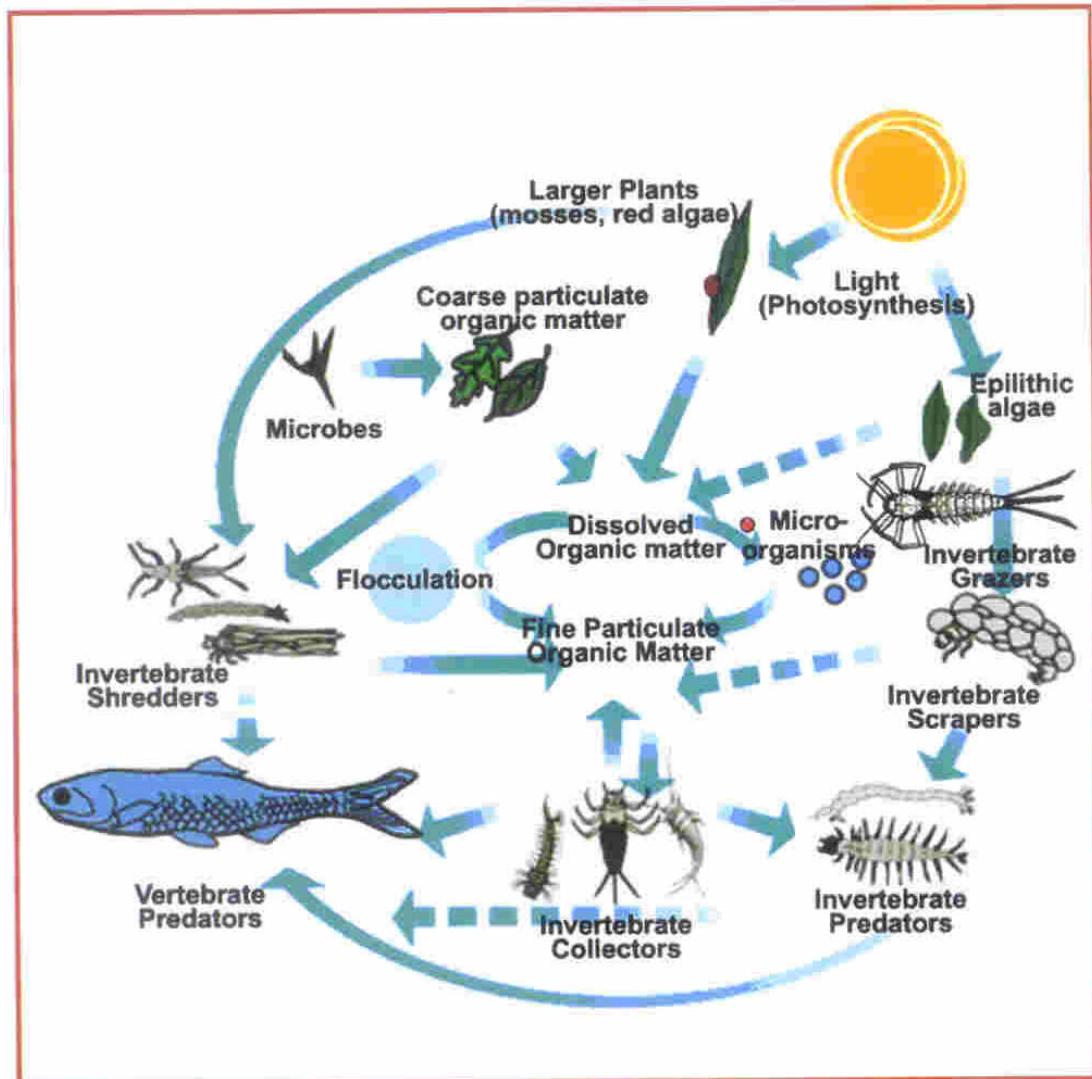
xalbüttenAkjTenemKgA tñ TägenHrtU)anBnül GFb,aytamry³Ca]TahrNEdI)anmk
BñskYCI pl .

karfyclyagxalbüttenAkjTenemKgA tñ TägenHrtU)anBnül GFb,aytamry³Ca]TahrNEdI)anmk
BñskYCI pl mansar³SManyagFñgBitR)akd . karEfrkSaClcMRTUcatCa
eKal edAdñmYedm,EsürkeGay)annUkarGPiDñmancrPaBdI ;TenemKgA

vdþINGahar - KñbsmixgarClcMRTU)anBnül GFkU

TenTñLay)anhñhñkBlñxgrabkat,tamval ThñbitcakcU eTakjSmRT . sarFatGahar)anRbmU
pñkBñndCñj rñtbtATambeNþyTk . sarFatGaharTägenHrtU)anRbR)asCabzmedayBBk
rkþatttCñkRkRbePT bñbmkCacñbI stñTAtamRbePTrbSñkva . tamry³PabsaMñhsñNaj ;
mñGahar sarFatGahar nigfamB1)anbñll gtamry³stV nigrkÇatenAkjTk . enAeB1 EdI Bñvasab;
sarFatGahar)anbñll gmþeToteTACasarFatñCfak,TabenAkjExS cglkñmñGahar -eFI GayrI XñlU
Cal karEdI sñbI ; mñBñp eTakjTkelyRsñmkvij yagel On nigbñbmkvdþEdI kñnekltelþ
mþeTot . EtgmankarERbRbñI sarFatGaharbnþ bnñtenÆpExSTlxageRkamedaysarmankarRsñyk
kareRbR)as; karBñpuy nigkarwd þarlocñamry³TñakTñgRbþxageII . enHKñal mñnsarFatGahar
eTAtamRbBñEdI mankaryWñchCagI mñrbstTk . | mñbenHrtU)ansntCaExSgñkñwidñGahardt
EdI)anbñj enAkjgrþPaB .

kñbsnebñmak;TñgénExSsgñkñdñsay aHrtU)aneKeFI GayxtGs; rñFI GayEl gman -mannñfa
RbsnebClcMRTU)aneKeFI GayFñckI ; vdþnClitenHrtU)anEl gekltmaneLþeTotEdI nañGaysarFatu
GaharenÆpExageRkamGsyagqabrhñ . kñTägenHcal TþI enkar)atbgyagFñFñlUsmtBþpI it
eadysarEtsknB1 dñbI el j rbsRbBñGkñhñRtU)aneKykcitTkak; kñxageI ññbgj eGay
eXij fa enAkjTenal RbePTepSg²nominGacbegit eGaymaneLþvij nñGEdI)an)atbgeTæhlyenalleT
enHedaysarEtkarfyclyURbePTClcMRTU)anEdI CaedhehtñinGacbegit eGaymancñGaharel Is)an -eRBñH
EtRbePTClcMRTU)an)atbgiGsenÆpExageRkam! .]TahrNEdI mñbenHbgj eGayeXij nñ
mñ ehtenkarfyclyClcMRTU)anEdI GaceFI GayGnþaydI mixgarRbBñGkU
enHCa]TahrNEdI mñKtEdI bBñknUrrebobEfrkSaClcMRTU)anmansarsMñckarrks)annUpI itPaBCls
aRshñAkjRbBñGkñbssTern



r bPabTn³] TahrN³yagsamBahnⁿNaj cIN GaharenAk^oRbB^ovarbGk^Ll^oEd^l
 bg^oj eGayeXlj nUExSsg^ok^oEd^l stV nigrk^oCatTa^oLayB^oEpk^oKaeTAvij eTAmk. kar
)atbgBBk^ostVnigrk^oCatBRbB^oGk^Ll^o-fy chCvch^o eF^oGaybHBa^o d^l BBk^o stV
 nigrk^oCatbdéTeTot . -esck^oBa^okrbsKN³km^okarTenomKgÁ Hatfield Group, David
 Dudgeon/Cesare Tatarelli).

kareRbobefobBlsar³sManrbsvišyC| p | Tksab nigTkeRb

kary | doBlsar³sManrbsvišyC| p | nigp | bHBal rbsyad | Cl/cM KntU)aneKykcitTkdak; xMeteTaeI visyenssaTTkéRbEd | manTmNzFg nigeRchel ls | benATUysakl el ak . manniä-karmycatTkvisyC| p | TabBRbePTman | kN³dtKā CaBess kjbNgeFU Gay)andtBp | bHBal GvCmanrbsvišyC| p | eTAel brish . CakespvisyC| p | TkéRbKusKāTabRSgBlisy C| p | Tksab . p | RttTkéRbchel ls | bRtU)aneKcab; tamEbbensaT] sSahkmpdayeRbR)as; kmkrktctt . ÉkarenSaTenAtamdgTenkmanEbb] sSahkmpgEdr CaBessenAtanTenomKgÁ EtPaKeRchénkarenSaTTaenahRtU)aneKeRbR)asEt] bkrNz tacbaNñH CaBesskarenSaTtam Ebb | kN³RKsar . p | cabenAtamTenkitCamFümkgGkensatmak²hakdtCATT)anp | tc kMnpgMhGkensatKmancmherchNas; karenSaTtameB | KlabTdan nigbRbM qaskáCamy nökargarkskmp TnninghpEdr shKmnPaKeRchEd | rsenAkjGagTen)ane)ahTtaenAEk, rthAkjEdnvarFnFanEtnj.

plymkvij karenSaTenAtamsmtRtU)aneFU gedayRbCaCnEd | rsenAqjyBdlnensat . | kN³ TabbentmanPaBxusKádacRsLH.]TahrN³karenSaTenAtamTenPaKeRcheFGaCl/kmpdayshKmn³/ Ed | rsenAtamdgTenø nigCaBessenAtamdkn; Tmab | icTk EdnTkEd | RtUkarBar kndCakarenSaT enAtamTkEngdetTeTotEdr. RobRbRbRgtamEbbshKmn³U danGaceFikarGPvDm³yC| p | Tksab)an | RbestedaysarshKmn³U BgEpkTabRSgjeTae | RobRbRbR -CaTbTavaCacNcrh énClt !.]bkrN³saTPaKeRchmantM efak rthCamlyTmabénkareFnsaTenAeB | TmreFU Gay mankarERbRbW yagxjd | FnFanC| p | . cménGkcl rthenAkjyvisyC| p | TksabGacekh ercheLgehlyeFU GaymankarERbRbW nUPaBsMurbSrténAkjyFmçatiyagqabrh¹ -eTAtamrdU kal nigtamqW.

| kN³sManmyepSgeTotrbsvišyC| p | enAtamTenoval TmabKmnsmtPaBsMynpPaBedayxMÉg ebéTahbCamansmaFénkarenSaTxalxyagNakéday . karERbRbW eGkLsbsTenEd | ekltman enAdmRtBk tamrdUkal)aneFU GayBBkRtCmg²sab)atbgCltenAkjyFmçatiyageRch -]Tah- rN³/ dtCakarrbsMéndUval TmabnafGayRtBdGaceTANarcbnbbmkk³nsab; rRbomU pñatam GnýrdUR)ajEd | manchMENnNantantab! . edaysarEtp | skRtTksabsaMamyngGarasab; xseTahlyenah RttTalnenah) anekltelbyj yagqabEd | GacTbT | eTangkareFGaCl/km)an ebl erbobefobeTangmhasmRTEd | man | Mo yagFNG.

CakarBit Nas; bNshKmn AtamdgTenGacsRmbsRm)annukareFnsaTrbsBkkateTAtam
 PaBsMtrbsRtl ehyk)nCyeF GaymancrPaBdI visyC I pI enAtamdgTenpgEdr. enAeB I
 EdI pI skkanEtricril eTA RbCaCaPaKeRch)anpasbmxrbrrbsBkkat; eB I NaEdI pI Rtckh
 eLbjmkvij skmpAbensaTk kheLbvij Edr. pbyKrsLHeTAngvisyC I pI TkRbEdI RtUkar
 nlkarvinleyakR)akkasyagercheTAEI] bkrNnsaT TkkaNTEdI CakMamGisTaj kareFnsaT
 ebETahbCapI skFmcatmankarfyclyagNakeday.

karTkbb(Car)akkasedayrdapI al k)npl CakMamGycityGaymankareFnsaTFnFanSmRTkan;
 eRcheLb EdI hysBkarTTI yk)ansmRsbeTAtambTdaneSdIc Caehtna GaymanEtnirnpab
 EpikCisars hysbbaN. CasNagNasEdr EdI karTkbb(Car)akkasEbb enHminRtU)aneKeFV
 eLbgCamlyngkarenSaTtamTeno visyC I pI TkRbk)nTTI rgbbHbal pgEdrBkare)aHgecal
 kaksN I ensaTEdI minRtUkar -kaksN I rI yénBBks t higrkCatEdI eKminyk!.

bBaCactugcBalisyC I pI TkRbKareFnsaThsknt; hysmtBaBEDI eF GayxtxatdI ;
 kareIkslyEpkesdIc nigrI RbeyaCnDakkasEdI RtUTTI)n. ebETahbCareFnsaThys
 kntCabBaekltmanenAt amTenyagNakeday knbNQaneTAdI karrI M aydI visyC I pI
 enaHeLy -edayel KEI gEtRbePTmychMEdI gayTTI karrgerKahetbaN. karxtxatbrisin
 CakarKmKmgmyagBitR)akd. CakarBitTATA pI RbeyacesdIc ghrbsvisyC I pI Ktian
 tI xsNasenAkEdnTksab -BerBahanRbCaCnyagerchEdI CabBakBjnenAkgral pI itkmI .

karmN agFMgcBalisyC I pI enATTaJBPBei akKpI bHbal eTAeI RbePTEdI minRtUkar.
 yagNamij mankarxosKrsLHBvisyC I pI smRT kovisyC I pI Tksab CatUTApI EdI cab;
)anBRKb] bkrNnsaTKitU)aneKeRbR)asTMS; enAkGagTenomKgrtU)aneKdMfamanRbePT
 SManEtBbbaNHEdI eKminRtUkar. ThlyKkarCabmgedayecdnuénRbePTRtepSatTksab
 (*Orcaella brevirostris*) enAdmEpikxageRkamI ,akexan⁴. TBKdaysarkarcu daycab;
 BBkkbRtR)æmSAEdI ekltmanenAkgrbeteSkmfa nigdndlsNprbeTsevotNam. ticCag15PaK
 ryénpI EdI cab)anedaydayRtRbePTxagel enHKCarbePTRteEdI RtUkar erkABenah -kurtbemSA
 yagtic160RbePT; RtU)aneKe)alhecal edaySarvamanTkhMdeBk.

⁴ Baird and Mounsoophom, 1997

FnFanCI pl nigkareFGaCl/kmpbsya

SitCapúkarbsrdap al énRbeTsTal4enAkúGagTenemKgárkam)aneFkar)an;tM TabenAeLlyeTA el þl itkmpungFnFanCI pl rbs;TenemKgÁ tamBtvaGacmaneRchCag kúcenahBI2/6 eTA 21dg el þs sitCapúkarEdl)anbgój eLþ⁵eTAeTot . GagTenemKgþl eGaynUFnFanCI pl RbmaNCa 21 anetankýmlyop⁶. kúenah ttcCag 10PaKry)anmkBlvarlb,kmp enAkúTenemKgÁ RbePTRtI manFgRtUeKensaT)aneRchCageK bnhbmkRbePTvars tVrkÇatdeTTotkansar³sManNasEdr CaBess CamLyngkareFhsaTTtac.]TahrN^{3/4} enARbeTsLav pl Edl cab)anRbmaNCa 30PaKry KWaych⁴KæTAedayBBkxügexP kmpk⁵ stv⁶ t þl nigfnkst⁷V. enAkúdhn; k⁸man] ssahkmpaxttt²pl itsaraystpgEdr-sarayEdl Rbml⁹)anBf¹⁰anAtamdgerBkCYPM.

enAkúGagTal¹¹val ERSK¹²CaChkd¹³ManrbSrtl nigvars tVrkÇatdeTTotEdr edayel kEl gecj EtBþl bHBal BkareRbR)asf¹⁴mabostV¹⁵ mlymxbenH.

vis¹⁶CI pl mankarERbRb¹⁷ xisKáyagx¹⁸Bbl¹⁹nmlyeTad²⁰nmly enHGars²¹el FnFan nigtrmukar rbs;TbSar. enAkúdhnEdl manRbPBFnFans²² nigg²³RbCaCnk²⁴chEdrenah →]TahrN^{3/4}dltCa TenemKgánARbeTséf nigdhnT²⁵abkNþl nigPthPaKxagt²⁶RbeTsksm²⁷a GaCl/kmpnsaTEbb l k²⁸]ssahkmpaneRchel ls l b. enAtamdl²⁹ndndlsN³⁰RbeTsevtNamEdl mandgs³¹t RbCaCnyageRchk³²krEdrenah kareFhsaTRbEh³³ Cazitk³⁴kxt xaxab³⁵. enAtamdl³⁶nmlych³⁷ eTot CI pl mansmaartk³⁸vis¹⁶]ssahkmpCaBess enAtamdgTen³⁹abénRbeTsksm⁴⁰a.

enArdURtRtu⁴¹]bkrN⁴²ayRthimly⁴³enAkúRbeTsksm⁴⁴a nigRbeTsevtNam Gaccab)anrh⁴⁵ldl kn⁴⁶ etan -0/5 etan⁴⁷ k⁴⁸ry⁴⁹eB⁵⁰Et15naTl. bbtahCardURtRtUenH cab)aneRcheTAtamrd⁵¹U nigman\TB⁵² x⁵³Tangd⁵⁴rrbsc⁵⁵Ktk⁵⁶day K⁵⁷aneFGayeKnikeXlj d⁵⁸ vis¹⁶CI pl sm⁵⁹T enARKaEdl vamanPaBs⁶⁰hbehor. manrh⁶¹ldl eTA 68dayRtEdl eFGaCl/kmpnAtamdgTensab nigdaymly⁶²ntoteFGaCl/kmpnARbeTsevtNam. manRtCag40RbePTEdl cab)ank⁶³my dg⁶⁴. karenSaTm⁶⁵yRbePTepSgeTotr⁶⁶manRbB⁶⁷)arasF⁶⁸ Edl eRbRB⁶⁹ rafedlm, bFGayRtIsresor cl⁷⁰ l b r⁷¹g. PaBs⁷²heTAtamrd⁷³kal enH eFGaymanRbCaCnyageRchc⁷⁴ r⁷⁵Rbkbrbrens⁷⁶aT

⁵ Coates, 2002

⁶ Sverdrup-Jensen, 2002

⁷ Sjorslev (*Editor*), 2001

⁸ Balzer *et al.*, 2002

nigskmBaB²epSg²eTot d²CakarpI it]bkrN²nsaT kard²CBa²pI ensaT karE²eq²pI ensaT ngkareF²CMY .

enARbeTskm²a d²lnEd I GacensaT)aneRchRtU)aneKerobc²L²ensaTedaydakeGayedj éf²k²yry³eB I Blq²M². m²SL²ensaTmansT²F²GaCl/km²nsaT nige²bR)asb²K²A ks²ps²edn,karBar bris²anCMj L²ensaT. c²NU Ed I)anmkB²L²ensaT)aneF²Gaynaykd²CI pl énRbeTskm²a keyCas²b²km²lymanGnPabenAk²RbeTs. RbB²RsedogK²enHekltmanx²EdrenARbeTséf bgkaeds \N²)akls²\N²nsu nigenARbeTsGah²exag I icCaercheTot. enARbeTsPtha RbB²L²ensaT ritEtman²lyfap¹⁹EfmeTot. mankarcabGarm²N²ageRcheTaeI RbBn²KbRKgtamEbbxagel I Ed I GacCaynkars²bGP²Ksbris²nigCvCM².

CakarK²e²Gayesakshy Ed I RbB²L²ensaTbc²n²HRtU)aneK²KnfaK²ny²md I sg²m. b²K²A Ed I manRTBüFneRchGamman I T²P²B²Tij L²ensaT)an c²ENkÉG²Rkvij K²B²acman I T²P²B²el²ly. Th²askanEtekltmanF²l²b² Ed I ep²me²c j Bkaredj éff²d I mant²PaBtct². f²enH raCrd²P²al km²a)anxitx²k I RbB²L²ensaTxagel l²nt. I T²b I Ed I TT²)anK²ep²km²y énkar katbn²y L²ensaTm²lych²Fn²akeGaykeyeTACaEdhensaTsaFarN³. S²MEd I K²e²Gaycab; Garm²N²ly)anel keL²bfa etkarebkeGayRbC²arkR²GaceF²nsaT)anenH nogn²Gaymankarb²b²oj FnFanEdrr²? ehlyRbsineb²ldenH²mn et²GETACal²lyvags²fbsshKmn²R²k nigkar)at;-bgCvCM²? bBa²enH²tU)aneKECEKevkej kCMj K²itB²-PaBRkR²k nigCvCM²; Ed I CakEs²ym²an TMak²M²kyagC²it². CakarB²tRbCaCnR²R²k²G²GP²rkSC²C²mp²Edr edaysarB²KatP²akRch B²Ep²keTaeI C²vCM²tajenah. d²NaHrsayc²BaB²B²xagel hns²AEteTaeI lsT²RbR²asFnFan e²Gay)aneRchbaN²ET b²nk²itK²d I karp²l²St²dm,RbRKgFnFanpgEdr. kareF²nsaT {L²l²} begiteGaymanRbB²R²KbRKgm²yedaymanp I Rbeyacn²chK²ysmd I C²vCM². RbeTsCaercheF²kar cabGarm²N²daydakecj TisedARsedogK²enH²B²hkarRbRKgFnFan. d²éh tRm²le²Gayr²rkvFI begiteGaymanRbB²lyEd I kanEtmany²F²m ngs²ñGacTT² yk)a.

C²I pl Ebb]ssahkm²BaNC²mpnAtamTenomKg²kp²keTaeI kareF²nsaTenardUT²s²MEd I RtPak erch)anb²as²TBltamkEngrk²nenArdU i²kmkrkCMkenArdU)al. rdUEd I R²RtUb²ltK²K²Gac cabRt)aneRchel lsB²kareRbR²asrbsshKmn²U dan. CacM²ly R²Ed I el lsB²sc²ltUkarRtU)an eKE²eq²arbhk T²RtI nigpl itpl epSg²eTot edayerbR²asbec²RTüa]ssahkm²dl c²Nay

⁹ Coates, 2002

edhTnicttcbaNñ. pl itpl TahrNñ GaymanRbeyaCnñBj mñyrdv nigbñBj)annUrmñkar enArdñEdl xSTtl Cakarkñ GayktsMal ; karenSaTenAtamdgTensabGacmancñCaGtbrmar enArdñRtRtU ehlytémñt)anFakcñdaySarpI cab)anhñBñsckpUkar eB| enahkarenSaTkñyan pñkmñry³. enHCajTahrNñEs ñgenAmanEtmñKteI BPBel akEdl manpl el ll BñsckpUkar enAkñvisñCpl .

eTahCamankareFñnsaTEbb] ssahkñp kñkarenSaTCal kñN³bñkñ Á tñt²enAEtmanchñherChel lsI b. tamI TþI énkarGejtñky)anbgñj eGayexlj fa manchñRkñsarEdl rsenAtamCnbTkñGagTenñ emKgñabBI 64 dI ; 93 PaKry cñrñkñkareFñnsaT sñbTkhñb nigl kdñ. Rshñigkñmarman karcll rñhyagskñkñvisñCpl TakyñkarenSaT nigkarEkéqñCñy . ePT nigGayukñan\TB| dI eB| evl a nigTkEngensaT ehlyngpl Edl cab)anpgEdr. Rshñigkñmar RbEh | manchñ smmaRtmñyxskñkarcll rñtheFñnsaT {Cñcñ} ehlykñpñkyagxñTAel FñFanenñEdr. RtI nigpl itpl varstñtñeTotCarbPBRbñtGhyagsMansñbñshKmnñAtamCnbT. pl ensaTcñrñRTRTgdI sñbñxes, ñgenAtamml dñ nñgñdñanyagerch .

enATenñmKgñGñacCakEngñyEdl man]bkrNñnsaTerchRbePTbñtCagkEngnanaenæl BPBel ak. RkñEtenARbeTskmñCamñbñNñRtU)aneKbgnj eGaydñfa man]bkrNñnsaTyagtibñtchñ 160RbePTepSg²Kñ ehlyTñtñKænH enARbeTsLav éf nigevotNam kñNñNñasEdr.]bkrN³/4 ensaTCaeRch RtU)aneKerBETenAkEngensaTCak;l ak; nigtamrdñkal bñNñ.]bkrNñnsaTxñBñmanÉkeTskmç, asl aseLy →] TahrNñCa r)ñFñs dayRtll ehlycab)anRtRKbRbePT bñfñbkrNñy cñtheTotensaT)anEtRbePTRtCak;l akbñNñ.

RbCaensaTmñyCñh CaBessRknGñkeFñnsaTtamEbbBaNCkñpñ erBñR)asEt]bkrNñnsaTmñymix bñNñH pñyeTAvij GñensaTRbePTdñtTetotPaKeRcherbñ]bkrNñabRtpSg² GarSñyéTAtamrdñU- kal ePT RkmCnCati ktñsgñ esdñcñigbrisñ .]bkrNñnsaTtñt²CaeRchRbePTKñman tñl éfoly . mñl ehtEdl nañGayRbCaCñerBñ)as! MabRbePT]bkrN³/2KænH edaysarEt FñFanmanPaBsñall ehlyRtCaeRchRbePTrsenABñEpñGarSñyéTAtamRbePTTICñk nigebI evl a énrdñkal . PaBepSg²KænHñ GaymanRbeyaCnñ/ nigCñySñ dI RbCaCnPaKeRchGacRbkbrbr ensaT nigcll rñh)ankanEtercheLbj ehlykñmansmFmkñkarEbgEckpI RbeyaCnñpñgEdr.

t̄haT̄b̄syarlb,kmp

bɔn,nənH varlb,kmpnAmankM TabenAeLly ebbobobeFobeTAngkarensaTRtI ebtahbCaenAdn; xHmansnlyCagkEngepSgeTotk̄day. varlb,kmpnEbbBaNCRmp-edayrbBapTalpI itpl]ssahkm̄lbnatj eTakan;TbSar! K̄B̄gmankarekheLb. enAdndlsNrRbeTsevoT Nam karCBaRtR)atamEbrkarCakarcBaRteqhr edob KUF Gay]ssahkm̄B̄gmansnQaneLb.

PaKeRchénpl itpl RthmantM K̄B̄s̄yel II k̄B̄c̄nEdpl itecj BRbePTRthmantM efakcab;)anBTenigtamval T̄lab. skmPaBvarlb,kmpnlycm̄ K̄b̄R)asEtRtsMn bəN̄H -vaerB)as; RthRchCagpl itpl !. varlb,kmpnigkarensaTmanTHak;T̄gK̄ayagx̄ edaysarEtRtBCSMbdak; cBaRCal k̄N̄BaNICK&mPaKeRchK̄hsaTykmkBFm̄cati. karC̄ij Ep̄varlb,kmpnGayTTV)anR)akc̄NU erchCagm̄Gahar.

varlb,kmpfrikTabc̄M CamlyngkardamH K̄mansnlyekltmanCaBesssenAtamdnénRbeTséfEdl zitk̄GagTenomKgÁ nigenAdnEdndlSN̄RbeTsevoT Nam. CakarBit Nas; varlb,km̄nt̄man niñkarGPiDñnyagl bestenAtamdn̄dacopyBEDnensaT nigT̄C̄m̄; vis̄C̄pl nigkar dñurhK̄ K̄amrebobdakcBaRtēnAk̄yal ERS. tamT̄lab; karcBaRtK̄pKeTaeI karRbmU Rtl nigst̄T̄etTotBk̄s̄kFm̄cati. enhCaskmPaBdmansar3sm̄bñtenAk̄GagTenomKgÁ eTbET f̄PenH mankarrk̄htamry3karB̄E gk̄RtbU k̄EdnT̄kFm̄cati. kareF̄Rs̄tamEbbRbBI vb,kmp CaBess kareRb)asf̄stabstV)aneF̄ GayGn̄paydI RbPBc̄NU ngm̄GaharrbsRbCakskrenAtamCnbT. kareF̄Rs̄stamI k̄N̄T̄m̄beF̄ Gay)atbgGsn̄UpI C̄c̄lyageRch Edl Fab; ekltmanenAtamdnEdl k̄B̄gmankarrkdñdal Ep̄kkskm̄ERS !.

T̄hneB I Edl varlb,kmpdrt̄yhaTkanEtsManeLb̄enAk̄TenomKgÁ karPanRcLM̄agx̄dm̄kȳyan ekltmanpgEdrBlsm̄B̄rbsyarlB,kmpdh,beghpl itpl Rtsrb. sm̄B̄rbsyarlB,kmpGaceFTA)ank̄B̄s̄ȳ Cadh̄deTAel I faetRt̄ueF̄ȳagNaeGaykareF̄hsaTmannim̄paBpgEdr. ebB̄m̄kar Rk̄bRKgeGay)anI Rtm̄Rt̄ueTenah karensaTRtRbEhI Can̄fyctleOnCagkarrk̄t̄hrbsyarlB,kmp Edl k̄B̄getbñbj)anCabeN̄p̄edayRtbBaR. enAmankaryI RcLM̄ȳepSgeToteTaeI varlb,kmp edayKitfavaGacrksa)annubrisanI bestCagkarensaTRtItamTenønidñval T̄lab. RbkarenHK̄m̄B̄iteLly.

vis¹⁰ var/b,km)anl kN³xskæRchenAkjGagTenomKgA blñþabgj eGayeXlj nUcrk l kN³Ca THTAEd l)aneklmankjkarGPiDñskmpenHehlyCal kN³gayRSll rbsRbBñp l itkmp tamry³ begheLgnUkarRtBhitü nigkarEERbbrisn. var/b,kmGaceFñGaymanpl bHBal yagFnFodl; brisñpgEdr. enAtamTenomKgA karCH\TB l dñFgBlvar/b,kmplhman kareFñGayxþxatEdnCñk -CaBesskarcBañbgartameqñ; kareFñGacl/kmpñskNtensþFmçati nigChkal BlñmankarRKbRKg rñkarRKbRKgenAmankl l BlñmankarRbR)asBCnatU CamlynigBCKñRsk.

tamkarBhit üemll eLbyjj fñenhrbsBPBel ak)ansñlanfa -cñBaHEdnTTksab l var/b,km)anlham Kñhgd l ClchMyagFnFñ KñmEmnkarenSaTRt¹⁰eLLy. karGPiDñvar/b,kmGacpl p l RbeyaCn³/4 yagerch Etvakþkel ekal karNñkñskargarRKbRKg nigGPiDñKarenSaTRtþgEdr. ekal karN³agel bnH sñbaeFñGaymanl hñgd l ClPaBrSenA karkatbnþPaBRkRk nigrhþbaþTald nrnþPaBd l RbBñGkllþl -dtCa ClchMl. CaBkarKñGayesakshy Edl CærOy² var/b,kmþ RTU)aneKcat;TkfaCæsfmþRbePTsñbedahRsaynlral bBñbsvis¹¹Cl p l EtpþyeTAvjj kar CñayTñshbinyeyakEbrCæpþteTAel karenSaTTksabeTAvjj .

¹⁰ Blue Millennium: Managing Global Fisheries for Biodiversity. IDRC, UNEP, World Fisheries Trust. Victoria, Canada.

karK_mK_hgdI yaC_cmenAk_jGagTen_mKg_A

ral karK_mK_hgekltmaneL_b tamry³RbPBB_bH 1; k_tCH_bT_bI BlskmPaBxagk_jvis_yC_bI p_l nig 2; k_tBkagerKA. karK_mK_hgedayp_b dI C_cch_bBlis_yC_bI p_l r_mman H kareRbR)asn_mral ;] bkrN_mnsaTb_bb_m -eRKOgpl karb_bnig] bkrN_mk; karensaTRt_benAk_jd_mNakkal gay eF_bGayrgerKAH dtCaenArdUBgkb_b n_mkaensTenAk_jd_mEdI RtBgkb_b.

RbePTRtEdI b_masCah_b GayTT_b rgeRk_bf_bkBkarensaTh_bsk_m . R_tCaeRch)anb_masT_bnA eB_b Etmy eF_bGayB_bvagayTT_b rgn_mkaensatEbbRbB_b vb,km_b CaBessCam_blyngkarensaT EbbBaNICK_bmu Ca_bTahrN_b% r_mmandayR_tenAtamdgTen_msabénRbeTskm_ba. edaysarIxit G_bB_bttmanry³B_b x_b)aneF_bGayG_bkaensatPaKeRchRb_bcabt_bsk_mnt; CaT_bTA Rtb_masT_bday sarEt karB_bkt_b ehlykarRbml_b p_bbsRt_benATEngB_bkt_beF_bGaypl sk_bgayTT_b rgeRk_bBkar ensaTh_bsk_mtenAk_jrdUBgkb_bnenahpgEdr.

I_b NakarRKbRKgB_man I RtmRtU karRbE_b gvar_bst_bseTak_jEdnT_bFm_bcati GacCH\T_bI GaRkkdI ; C_cch_b. \T_bI enHe_bltmanCaj y²tamry³var_b,km_b enAeB_b EdI st_btaMenahR_bccU eTak_jEdnT_b Fm_bcatdaysarEt kars_bRt_brt_bcecj BKEngcBan_bRtI -eRk_bf_bCar_b enAeB_b EdI RshI icTikenA rdUT_bk_mb_b . C_cch_bGacCH\T_bI bkmkvij enAeB_b EdI BB_bBCeRKA_bskdeN_bkaCam_blyngBB_b RbePTB_bck_bRs_bsk_bEdnT_bFm_bcati.

Eterk_bf_bkenHeK_bGacRKbRKg)an edayerB_bE_bRbePTB_bck_bRs_b . I_babFm_bcatibsRtk_bRs_bGac eGayek_mnt)anyag_b,asI asenAk_jGag - R_tRbePTT_bnenahminmanenARKb_bEng_bL_by . CakarBit Nas; RbePTRt_bck_bGagTen_mKg_jlych_b CarbePT R_terKA_bRs_b : -manRbPBB_bkagerKA; rsenACA eRch_bEng_bk_bGag . bEn_bel bn_b kars_bT_bRt_bGacRtU)aneKdakc_bBCEdI rsenAk_jdk_mnepSg²K_b ehlyB_bnm_b²mancrk_b k_m³esenTcx_b²K_bRsLH.)atPTtenH_bCa] TahrN_bg_bj eGayex_bBPab x_bK_benesenT_b n_msa_b³Manrb_bsy. enH_bGacCa] TahrN_bg_bEdI bg_bj fa manRbePTCaeRch rsenAdacBK_bragEp_bxageI InigEp_bxageRkam I ,akexan .

enAtambN_bTenn_blych_b bBaCaeRchTak;Tgny_bkarE_b gBCRtFm_bcatidakcB_bntamksdnRtU)aneK ktRtaT_b)anyagI RtmRtU CaBess BB_bkb_masT_bah_b -dt_bekltmanenAk_jTen_mKg_A. dtbenH kar S_bfaetRbePTT_bnenahB_bitCa RbePTeRKA_bRs_b : manrsenAk_jdk_mntNam_by GaceGayeKeF_bkar

Bicar NayanBkMtxisKäenkltesenTicEtbaNñ KñinEmneTaeI kñRbePTeLly. RbkarenHRTüGay
mankarRsavRCavbEn theTotBPabXisKäenesenTcrbsRbePTBCKñRsk nigfaetkarCH\TB Bkar
GnuthKbRKgvarl/b,kmungvisyC pI manyagdttemç.

karbHBal dI BBkvarClcMEdI TTV rg\TB BktbxageRkAvisyC pI dtCakarERbRbW brisan nig
EdnCMkenAtamdgTeno)anekeitmaneLgedaysarTTV rg\TB énkárGPiDññ kthTamenHGaceFV
eGaymanpI bHBal dI Clch nigrhman H

1- karbBulaj EdnCMkBgkblenAtammU dan rMkenArdUR)aj EdI rg\TB Bkarsh)at
ERBk karkabbaj sareBhkÇatinigkarERbRbW énRcaUTeno

2- karERbRbW nUKNPabTiktammU dan -> karbBul | nigbrimaNTlikEdI enAsI edaykar
skTikTkenAkñTmb; nigkarraxbSñbeFarasasRb nig

3- eRkABkarbaj brisñntammU dan karsagsgnUr)aj -Tmb; RbLay karbEgVl htb. |
kñabBñmyepSgeTotEdI bgñCa]bsKépkrbsasRb karbW as,TbsRtI.

Cakarc,asNas; \TB Tabybñnxagel hnH eFüGayGnþaydI EdnCMkRbBñGkLñsl \TB
Tabenah nañAdI karERbRbW RbBñGkLñslTenønigQaneTA)atbg;TabyrsignEdnRbBñGkLñsl
TahmU . kar)atbg;TmbI icTiktamTeno-tamry³karRtBñitüTikCñn; nigSamBñmFarasasRb
enAtamTeno eFüGaymankarRBX)armññyagxaj. karERbRbW TabenHedaysarkarfycH
yagxajTabvarpI itPaB nigClch.

edaysarEt]ssahPavñonlykmj nignKrEdndñonlykmptv)aneKkñN tñUTItañkjgdlñnmlych
c,as;I as; eTb)anCarhltmkdI sBñfñH va)anbgäGaymanpI bHBal tictcbññHdI Tenø
emKgA el kEl gEtenAtammU danecj . kñbñp enAeB I NaEdI cmRbCaCn nigel ,hénkar
GPiDññkanEtmanshQaneLb ClitvarCatingRbEh I CaGacRtUTTV rgnUpI bHBal ; | TpI
GvCñnanénkarkabbaj eRB kareFikskmBñanRtñRtV karsagsgpí varGkñsl nigrbñPaBén
karGPiDññSg²eTot)anbgaj CaPsItagrtæTahly . bñbenATenømKgAbBaEdI FñFñptKW
brimaNTik minEmnKNPabTiktely. kñBX)armñññKkar)atbgsareBhkÇatRKbRbePT
nigCaBess kar)atbgyagel OnerB I icTikRKbRbePT EdI CavarEdnCMkyagsMansñbRtI.

enAq¹¹M 1997 KN³kmkarTenømKgA¹¹)anc~~b~~B~~b~~Up| bHBal BkareF~~h~~saTd| Cl~~c~~~~M~~k~~g~~kMt
mly .tctt :p~~y~~eTA^j skmpaBBv~~s~~^yepSg²eTotK~~w~~ank~~M~~ xs; :¬tamry³p| bHBal rbs;
vaeTAel bris~~an~~!. PaKeRchenG~~k~~eFIGt~~F~~b~~a~~yBlsPaB| kN³rbs~~v~~^yCl p| Ten~~E~~kPaBfa
karK~~m~~K~~h~~gF~~F~~pt~~K~~Ael m~~U~~ danbris~~an~~¹².

¹¹ MRC, 1997

¹² For example, FAO, 2000

SinhPāB nigTāharel bNāRbePTkānt;

kary | dgCartheTae | vis¹³C1 p | TenomKg¹⁴akdCamankarfycH. kānphsYfaetTSn³enH
Rt¹Rt²edr³? eblvArt⁴Rt⁵etlamanGt⁶yagdtemp?

Cabzm nigmansar³Manb⁴utenah K⁵tanmanPs⁶tagCak;I akNamkybBa⁷knUTsSn⁸Ed |
)anel keL⁹bfa vis¹⁰C1 p | k¹¹BogmankarfycH¹²yagr)akdenaHeLly. vaCakarBit NasEd | fa
RbCaensaTPaKeRch)anraykarN¹³ap | Ed | cab)anrb¹⁴sB¹⁵KatmankarfycH EtbB¹⁶Rt¹⁷gfa
c¹⁸Gikensat¹⁹k²⁰BogmankarekheL²¹b. c²²mp | cab²³srbGacenAdEd | -r²⁴acekheL²⁵b | eblvTaHCa
p | cab)anCamFümrbsGikensat²⁶m²⁷k²⁸)anfyct²⁹iceTA³⁰k³¹day. tamkarvPakn³²UTh³³y Rbvt³⁴
SaRs³⁵nRb³⁶Gk³⁷l³⁸TensabRbeTskm³⁹a)anbg⁴⁰j n⁴¹ukarsn⁴²an⁴³d⁴⁴kā. s⁴⁵ManCagenHeTA
eTot T⁴⁶nyf⁴⁷)anb⁴⁸natnUTsSn⁴⁹CarhEd | fa mans⁵⁰b⁵¹I k⁵²ntc⁵³BalkarekheL⁵⁴bp | itp |
Rt. eTaHbCa enAtamdl⁵⁵nEd | manRbCaCneRch RtEd | cab)anman⁵⁶h⁵⁷k⁵⁸ntd | B⁵⁹Kat⁶⁰day
k⁶¹Amand⁶²nmky⁶³ch⁶⁴Ed | mandgs⁶⁵hRbCaCn⁶⁶tic T⁶⁷natHehlyp | cabenAmankarekheL⁶⁸b. bEn⁶⁹
el⁷⁰enHeTot TisedAEK I ⁷¹erEdnCM⁷² nigkareF⁷³GayRbeskeL⁷⁴bvij d⁷⁵karRKbR⁷⁶Kg vis⁷⁷C1 p | Ten⁷⁸
)anbg⁷⁹j eGayeX⁸⁰j B⁸¹karekheL⁸²bvij yagr⁸³h⁸⁴n⁸⁵up | itp | Ed | RbCaCncab)an.

EttamkarBicarNæl b | itp | Ed | TT¹)anGacbiT)anUkarERbRb²yagx³denAk⁴kn⁵RbePT
C1 p | . T⁶gCakarBit Nas; manRbePTRth⁷lyc⁸h)anfyct⁹bp | skrbsyagx¹⁰ edaysarEt
enAtamTenomKminGacensaTva)ank¹¹km¹²yeRcheToteLly kar)atbgenH edaysarEtRbePT
Rt¹³T¹⁴tenah mankarl¹⁵l¹⁶as,y¹⁷. bBa¹⁸enH)anekltmanCaerScenATensabEd | p¹⁹Er²⁰racrrbs;
BB²¹Krt²²CaerRchRbePT k²³BogmankarfycH²⁴reGaykts²⁵Mal ; -eTaHbCaTn²⁶p | RtRbePTt²⁷)an
bg²⁸j faenAmans²⁹uk³⁰day|. BB³¹Krt³²TenomKg³³ "Giant" Mekong Fishes – *Pangasius*
sanitwongsei, *Probarbus jullieni*, *Catlocarpio siamensis* nig RthaCd³⁴n; "Pangasiandon
gigas" Gack³⁵BogfycH³⁶yagx³⁷. yagNamij tambtmanEd | rk)an bg³⁸j eGayeX³⁹j fa
yagehacNask⁴⁰manRbePTRtRtsk; *P. jullieni*, nigRbEh | CamanRbePTdeTeTotEdrk⁴¹Bogman
karfycH CabessenATT⁴²RbeTséf karfycH⁴³yagx⁴⁴denHGars⁴⁵yedaymankarra⁴⁶x⁴⁷benAtam

¹³ Coates, 2002

¹⁴ Van Zalinge, 2003

Tens → T_{MB}; Tk nigT_{MB}karBarTkC_{MN}; Capl bHBal BkarenSaT¹⁵. RtBhRbePTk_{jk}C_{MN}am RbePTRtlykST_{jk}enHman Rt_{jk}C *P. gigas* nig RtRtsk; *P. jullieni*, RtU)anktRtak_{jk}bB_{jk}k_{jk}hm rbsGg_{jk}kar IUCN faCaRbePTRtC_{it}pitB_{jk} bEn_{jk}aminRtU)aneKc_{jk}bB_{jk}essfa TTW rgedaykar eFGaCl/km_{jk}bRbmaNenaHeT ehlyCacgeRkayRtU)aneKktRtafafy_{jk}ledaySarkar)atbgEdn C_{jk}.

vis_{jk}C_{jk}p_{jk}tambN_{jk}Ten_{jk}ATkEng_{jk}eSg_{jk}2eTotTT_{jk}BPBel akEd_{jk}kareFGaCl/km_{jk}rankM_{jk}h_{jk} k_{jk}nt; bC_{jk}n, n_{jk}H)an)atbgGsnURbePTRtF_{jk}b_{jk}as;Tl ehlyp_{jk}cab)anTa_{jk}Rsg_{jk}K_{jk}lRbePTRtI t_{jk}². enAk_{jk}l k_{jk}EBbenH Ten_{jk}mk_{jk}Y_{jk}eGaycabGarm_{jk}N_{jk}AeL_{jk}y B_{jk}RBaHRbePTRtlyk_{jk}} **Giant Fishes**{ enAEtRtU)aneKcab)anY_{jk}smCarbc_{jk}M Ta_{jk}enH)anbB_{jk}keGay_{jk}X_{jk}j fa C_{jk}p_{jk} fitk_{jk}s_{jk}PaB_{jk} l_{jk}AeL_{jk}y_{jk} ehlyral karvin_{jk}eyakk_{jk}karRKbRKgeGay)ansmRs_{jk}K_{jk}man RbeyaCn_{jk}Nas;

ral karERbRb_{jk} p_{jk}yK_{jk}enAk_{jk}Cl_{jk}rbsFnFanC_{jk}p_{jk} K_{jk}inGacbd_{jk}S_{jk})aneL_{jk}y. yagNamij m_{jk} eh t_{jk}acm,gK_{jk}Uc,as;l aseL_{jk}y. Bit Nas; sm_{jk}FénkarenSaTk_{jk}g_{jk}ekheL_{jk} ehlykar ERbRb_{jk} bris_{jk} k_{jk}ogekltmanyagqabrh_{jk} pgEdr. d_{jk}c_{jk}H vaB_{jk}aknigeF_{jk}karbg_{jk}j n_{jk}b_{jk}S_{jk}I én ehtp_{jk}l Ed_{jk}l eFGayfy_{jk}hURbePTn_{jk}Y_{jk}²Nas;. yagNamij FatBitCakE_{jk}S_{jk} vis_{jk}C_{jk}p_{jk} m_{jk}inGacTb;T_{jk})an Cam_{jk}ng_{jk}kténkarenFGaCl/km_{jk}BS_{jk}f_{jk}igkarx_{jk}txatbris_{jk})aneL_{jk}y. vak_{jk}l_{jk}ak pgEdredh,éF_{jk}kar_{jk}nitn_{jk}ral smasPaBrbsFnFanC_{jk}p_{jk} faGacTb;T_{jk})aneT_{jk}Ng_{jk}sm_{jk}Fénkar cabr_{jk}WT. TisedAd_{jk}revkedh,lg_{jk}j eGayeX_{jk}j n_{jk}BB_{jk}varst_{jk}d_{jk}l gayTTW rgeRkaHb_{jk}tenah K_{jk}ntUdakecj n_{jk}karRKbRKgd_{jk}smRs_{jk}bmy_{jk}d_{jk}l vis_{jk}C_{jk}p_{jk}. ritEts_{jk}ManCagenHeTotenah K_{jk}kar ykcit_{jk}tkdakB_{jk}karK_{jk}h_{jk}hgyagFG_{jk}F_{jk}d_{jk}l Cl_{jk}l enahK_{jk}karx_{jk}txatEptbris_{jk}.

¹⁵ Rainboth, 1996

etkar)armN^{3/4} Cl/cMrtU)andakbBaPeTAkōkarRKbRKgvis^{3/4}Cl pl ehlyrthA?

CaTbTA bKA shKmn^{3/4} nigTPākgarrdaPi)al énvis^{3/4}Cl pl enAtamdgTenemKgnh)andignU
I kN^{3/4}EbkKāvagkarRKbRKg }Cl/cM{ nivis^{3/4}Cl pl eLny. yagNamij man]TahrN^{3/4}
cMh Edl bBaakeGayeXlj fakarRKbRKgvis^{3/4}Cl pl BitCa)anbgōj nUkarRB^{3/4})armN^{3/4} ;
Cl/cMh.

kRB^{3/4})armN^{3/4}zadenahrhman H

karhamXatCapūkaredayRbeTsevotNamcNBalkareRbR)as:]bkrN^{3/4}daytb² sM²
cabkbRtR)aemSA -bgōj eGayeXlj BkarRB^{3/4})armN^{3/4} pl bHBal pl skRbePTRtR)a
k^{3/4}CaRbePTRtepSg²eTotEdr!.

karhamXatCapūkaryagTU MU ayBkareRbR)as:]bkrN^{3/4}nsaTb^{3/4} b^{3/4}j manCaGaT^{3/4}
]bkrN^{3/4}kRtI-RbeTskm&a nigevotNam! karb^{3/4}l nigeRK0gp^{3/4}-RKbRbeTS!.

mankark^{3/4}tCaTbTAuK^{3/4}tenkarenSaT edayRbePT]bkrN^{3/4} T^{3/4}nkLa T^{3/4}ta² rdU
nigmeFüa)ayhRB^{3/4}b^{3/4}nB^{3/4}I x^{3/4}K^{3/4}bkTU ay.

Cae^{3/4}oy² mankarhamXatcabRbePTRthm^{3/4}cMh CaBessRthaC.

f^{3/4}enH RbeTskm&kB^{3/4}EtBicarNanUkarbitdayRthm^{3/4}henAtamdgTen^{3/4}ab Edl CaeRchel k
Etgcab;)anRtlyksF^{3/4}-CaBessRthaC; Edl b^{3/4}as;Tecj B^{3/4}Ten^{3/4}ab.

ral karTbsátPaKeRchEdl)anel keLgrbsrdap)al B^{3/4}manRbs^{3/4}T^{3/4}PaBeLly K^{3/4}anEt]bkrN^{3/4}
ensaTF^{3/4}Edl mankarRt^{3/4}Bhit ügayRs^{3/4} baN^{3/4} dtCa dayRtEdl e)attenAm^{3/4}y kEng. mankar
b^{3/4}anc,abyageRch ehlykarGn^{3/4}th^{3/4},abenHmanRbs^{3/4}T^{3/4}PaBtct^{3/4}b^{3/4}nt. t^{3/4}agdtCa karham
XatCapūkarf^{3/4}enHnURbePTdaytb²sM²cabkbRtR)aemSRTU)aneKKitfamanp| bHBal kōkM
ritm^{3/4}k^{3/4}nt;Edl rhltmkd| eB^{3/4}I enHkareF^{3/4}nsaTx^{3/4}c,abCaerchenAEtmanbn^{3/4}

karRKbRKgCl pl tamry^{3/4}RbB^{3/4}L^{3/4}ensaT dt^{3/4}manCa]TahrN^{3/4}ARbeTskm&a Gacmanpl
Rbeyacn^{3/4}agsMans^{3/4}bQaneqalHeTarkkark^{3/4}trB^{3/4}ntI; nigrd^{3/4}ensaTeGay)anc,as;l as:

edaysarEtedmTovnveyakrbsBKKat; m¹⁵SLitxitxMarBarFnFan nigEdnC¹⁶kenAk¹⁷EdnensaT
rbssxb.

p | RbeyaCn¹⁸BRbB¹⁹LittensaTm²⁰yeTotK²¹BegitCar)akc²²NJU s²³abrdap²⁴yal . enAT²⁵TaMBPB²⁶el ak
RKb²⁷kEng²⁸Edl FnFanC²⁹I p | RtU)ankarBaredayminebkeGayeF³⁰nsaTCac³¹hr nigkareFGaCl³²km³³
h³⁴RbmaN | T³⁵ | bg³⁶j fATT³⁷)aneCakC³⁸y K³⁹mankarekheLgTa⁴⁰Cvcm⁴¹nigp | itp | C⁴²I p | .

] TahrN⁴³aerchsBK⁴⁴lit p⁴⁵epnRKbRKg⁴⁶tamEbbshKmn⁴⁷JU d⁴⁸nk⁴⁹anrkral dayedaymanTMak;
TMgK⁵⁰TT⁵¹atTenomKg⁵² PaKeRchénshKmn⁵³Ta⁵⁴enHmanTMak; TMgK⁵⁵Cam⁵⁶lynp | RbeyaCn⁵⁷
s⁵⁸beF⁵⁹Gayman | M⁶⁰Cvcm⁶¹nigr⁶²Ta⁶³karEfrksaRt⁶⁴epSat "dolphins" dt⁶⁵manEcgxagedmRsab;

tamkarGeg⁶⁶f⁶⁷enHenAPaKxageCgRbeTS⁶⁸Lav¹⁶)aneGayd⁶⁹fa manG⁷⁰Pb⁷¹2PaKry)anray-
karN⁷²a BK⁷³Kat;)annak⁷⁴erobc⁷⁵BRbRKg⁷⁶anRbs⁷⁷TPaBtamTM amTM ab; manCaGaT⁷⁸x - d⁷⁹b⁸⁰n;
GPrkS dt⁸¹Ca Gn⁸²erCA⁸³enAtamTen⁸⁴Edl kareF⁸⁵nsaTenATbaHRTU)ank⁸⁶Nt⁸⁷kg⁸⁸eB | Cak;l ak;Na
m⁸⁹y . Ta⁹⁰enHCaC⁹¹Osasnad⁹²Mans⁹³abml⁹⁴ dan 2- rd⁹⁵hamXat; -CaBessenArdURtBg | nig
3- kark⁹⁶Nt⁹⁷bkrN⁹⁸nsaT edayhamXatmhRt⁹⁹Etkarb¹⁰⁰ nigqkbeN¹⁰¹HeT Ef¹⁰²mTa¹⁰³ral ;
RbePT] bkrN¹⁰⁴E Gaccab)anRt¹⁰⁵cheTotpg CaBess h¹⁰⁶cracrRtEdl C¹⁰⁷pt¹⁰⁸BC . Tn¹⁰⁹ingenH
k¹¹⁰mankarhamXatmbj¹¹¹pgEdrnURbePT] bkrN¹¹²nsaTN¹¹³Edl cabCM¹¹⁴EtRbePTRt¹¹⁵lym¹¹⁶
nigeTAtamrd¹¹⁷ukal enAeB | NaEdl BB¹¹⁸Krt¹¹⁹Ta¹²⁰enahbg¹²¹j x¹²²Cah¹²³.

varCatCaeRchRbePTmant¹²⁴ vb, Fm¹²⁵yags¹²⁶Man; CaBessRbePTRtlykSF¹²⁷. dt¹²⁸manCa] TahrN¹²⁹
Rsab; enAe¹³⁰frobc¹³¹BRKgraCb¹³²l¹³³ kTb¹³⁴rbse¹³⁵pféf enAq¹³⁶1996 RbCaens¹³⁷Téf)ans¹³⁸ccit p
ep¹³⁹teTAeGaynaykd¹⁴⁰C¹⁴¹ p | RbeTséfnURthaCTa¹⁴²GSEd¹⁴³ BKKatcab)ans¹⁴⁴beFkarbgátBC .

ral yFankarN¹⁴⁵BRKgTa¹⁴⁶Gsxagel¹⁴⁷TamTareGaymankarK¹⁴⁸ nigel kTl¹⁴⁹cit¹⁵⁰En¹⁵¹heTot¹⁵² Tn¹⁵³
ngenH karRKbRKgEd¹⁵⁴ k¹⁵⁵RbkanykrbsBKKatCasBa¹⁵⁶ s¹⁵⁷beF¹⁵⁸Gaymannin¹⁵⁹paBd¹⁶⁰ ;
Cvcm¹⁶¹. rh¹⁶²mkd¹⁶³ \ L¹⁶⁴enH manK¹⁶⁵lit p¹⁶⁶epnCaeRchRtU)anepteTAe¹⁶⁷ RbePTRtb¹⁶⁸as¹⁶⁹skm¹⁷⁰
PaBTa¹⁷¹enHmanRbeyaCn¹⁷²al k¹⁷³GnpCati. yagNamij ed¹⁷⁴h, eF¹⁷⁵GaykarRKbRKgenHTT¹⁷⁶
)aneCakC¹⁷⁷y TamTareGaymankarKa¹⁷⁸arnUral yFankarN¹⁷⁹BRKgeTAv¹⁸⁰j eTAmkBRKbd¹⁸¹nd¹⁸² ;

¹⁶ Sjorslev (editor), 2001

RbePTRtbFbcr. dcl RbBfRKbRKgsRmbsRmI fákdlñkñnsar³s ManxñNas; sñNr fákdlñnedm, bFbGayRbesheLgnUkarRKbRKgpI sñRbePTRtbW as; TbñRBñbTl; CaBess SñbPabeI ceFabEnñneTotdI RbePTRtlykSFñ "giant-species")ancU rñcñNkyagFñG kñjkareFñGayRbesheLgnUkicSñhRbtbtkarNñal kñNñGñpCatenAkñGagTñjmlU .

CñBñHñT RbePTbW as; Tl Tam Tar [manvFankarGPrikSTñkMñfákCati nñgfákGñpCati. kic© RBmerBogmñycññEdI manrñmkehñlyeRkamRbFanbTGPrkSñHñrtWetCñj eGay)ankanEtRb- esheLg.

kicRñmerBogTñmenalRñhman H

- ☞ C,abRbtbtSBI }karTTV xñRtWñsñC I pI { "The Code of Conduct on Responsible Fisheries")anEkSMñ edayGgkar FAO enAqñM 995

☞ GnsBaSBI }karGPrikSRbePTs tñRbW as; Tl "The Convention on the Conservation of Migration S species of Wild Animals (CMS)"

☞ GnsBaSBI CñsaRshM "The Convention on Biological Diversity"

☞ kicRñmerBogM 1995 SBI }kicSñhRbtbtkaredm, GPvDññ GaymannnñpPaBenAkñ GagTenemKgA

ral kererobcñfákCati nñgfákGñpCatBitCamanSar³s ManxñNas; cñBñHñkareRbR)asRbePTRtlerkARsk nñRbePTRtkñRskñkñvisñvarlb, kmñ

cñNkñc, ab; nñgbTbBñC I pI nana EdI RtV)aneKerobcñLgenAkñTenemKgAññkñTñng kEngdñTñTotEdr. ral ;TisedAmCñkarBñl bñRkamrbsrdñpI)al KñtgEtmñmñRbSñTPab CaBess SñbGñcabRtPaKeChEdI erbR)as;]bkrNñnsaTtñtac. RbBñRKbRKgtamEbb shKmnñMñ dñkñmñRbSñTPabRbestCag CaBess enAeB I EdI mankarKñtedayrdñpI)al . xNññB I EdI TisedAenHñBñgEtRtV)aneKñmñj enAkñGagTenemKgAññmñ bñTpäkgarRKbRKg C I pI enAetminTan)andakbBñpkarGPrikSCñcññCarebobvar³rbSSñbñxññLly. ral kic© RbñERbgel kargarRKbRKgtRmñeGaymankartRmg;Tis eGaycñTAel RbePT dññ; nñgshKmnñ/ TñjGSEdI CakEngmankarBakBñedaypbl eTñngCñcññ.

CaTbTA ral TisedAkargarRKbRKgvis¹⁶ C1 pl enATenomKgÁinTantRmleGaymankarRKbRKg
brisñneLly. TisedATmenaRtU)anbgøj eGayeXlj enAk ñRbB¹⁷ RKbRKgPaKeRchtamEbb
shKmn¹⁸ dan Edl s¹⁹AEteTaeI kargarRKbRKgnUral bBa)anekeitmaneLbgk²⁰rgt²¹C1 pl
EtbeN²² x²³nsarTabenahK²⁴lgGB²⁵icR²⁶ERbgel kargarRKbRKgvis²⁷ C1 pl .

yagNamij shKmn²⁸saTT²⁹GS)ans³⁰Mc³¹É³²kedaykareBal GHGagrbsB³³Katfa kar
K³⁴mK³⁵hgdI FnFanC1 pl rbsB³⁶KatekltnanBTB³⁷ }xageRKA{ CaBesskarx³⁸xtatEp³⁹
brisñ. I⁴⁰Na shKmn⁴¹B⁴²Ep⁴³keI FnFanC1 pl enAEtminGacRKbRKg)annUral kar
CH⁴⁴TB⁴⁵ Blis⁴⁶epSg⁴⁷eTenah⁴⁸ vis⁴⁹ C1 pl Edl mansar⁵⁰beyaCn⁵¹enHGacn⁵²vnassab
Stü. Cær⁵³y⁵⁴ Ta⁵⁵shKmn⁵⁶ dan nigTP⁵⁷akgarrd⁵⁸P)al Edl mankarBakB⁵⁹T⁶⁰GSman
ITP⁶¹Abtict⁶²Nask⁶³karRKbRKgbrisñEdl CabEg⁶⁴krb⁶⁵svi⁶⁶ C1 pl . shKmn⁶⁷Et⁶⁸cab;
ep⁶⁹nc⁷⁰r⁷¹theGay)ankanEteRcheL⁷²bel kargarRKbRKgEp⁷³brisñ. bBa⁷⁴Edl nt⁷⁵Ets⁷⁶Man; nigKV
eGayRB⁷⁷y)arm⁷⁸N⁷⁹yagx⁸⁰xenaHK⁸¹I bHBal Ep⁸²brisñag⁸³RbeTs.

enAeB1 bcf⁸⁴,n⁸⁵H s⁸⁶nPaBs⁸⁷xPaB énvarbrisñrbs;TenomKgÁGacRtU)aneKeph⁸⁸tyagx⁸⁹taeI |
EtPaBy⁹⁰yavc⁹¹BalkarGPiD⁹²l Cal T⁹³l énbN⁹⁴q⁹⁵MaTk⁹⁶mk eRchCagkarRKbRKgFnFan
eGay)anRt⁹⁷mRt⁹⁸taeTot . EtenAeB1 f⁹⁹renH \riyabf nigneya)ayk¹⁰⁰bgøj eGayeXlj n¹⁰¹
SB¹⁰²enkarERbRb¹⁰³ yaggabrh¹⁰⁴. karpas¹⁰⁵b¹⁰⁶neya)ayPaKeCh)ans¹⁰⁷AeTarkkarGPiD¹⁰⁸
eGaymann¹⁰⁹p¹¹⁰PaB edayk¹¹¹jenah)anP¹¹²Cam¹¹³ynUral karKitKhdI vis¹¹⁴ C1 pl enAtambN¹¹⁵
Ten¹¹⁶nanapg¹¹⁷Edr. Ep¹¹⁸tamGnisasn¹¹⁹æRchEdl)anel keL¹²⁰gedayKN¹²¹km¹²²karT¹²³Mb;T¹²⁴BPB-
el ak¹²⁵)anbgøj n¹²⁶TahrN¹²⁷MannUpI bHBal d¹²⁸F¹²⁹BbN¹³⁰TMb;Ta¹³¹LaydI vis¹³²
C1 pl . Gnisasn¹³³manTisedArhldI karGPiD¹³⁴l ep¹³⁵htyags¹³⁶ManeTaeI C1/PaBrsen¹³⁷leGay
mann¹³⁸n¹³⁹p¹⁴⁰Ab enH¹⁴¹yK¹⁴²TAng¹⁴³ }karvPaKeI lt¹⁴⁴l énpI c¹⁴⁵Nj { "Cost-benefit analysis" Edl
ep¹⁴⁶htEteTaeI EtR)akc¹⁴⁷Nj Bkarvin¹⁴⁸neyaKEtb¹⁴⁹NH.

enHK¹⁵⁰akarel atepaH¹⁵¹yagF¹⁵²DaneqalleTarkkarRKbRKgFnFanFm¹⁵³cati. bEn¹⁵⁴CagenHeTaeTot
ral karERbRb¹⁵⁵ f¹⁵⁶)anbgøj eGayeXlj fa Ta¹⁵⁷Gk¹⁵⁸pl¹⁵⁹ CMY nigrd¹⁶⁰P)al)anep¹⁶¹htkarykcit¹⁶²
T¹⁶³dakyagx¹⁶⁴taeI hey¹⁶⁵aya)aysg¹⁶⁶Edl Rbm¹⁶⁷U p¹⁶⁸l C1/PaBrsenAk¹⁶⁹rgt¹⁷⁰vis¹⁷¹ C1 pl T¹⁷²sab

¹⁷ World Commission on Dams, 2000

eGaymanesßPaB. dñeñhly)anCabcß, nññH visßycI pl)anedltVnaTlyagFMgedayman
I kN³SaM allgxss²KakñRbB³gk⁴CamLyngkarRKbRKgCl/cM.

kicßhRbtbtkar⁵anRbsITßaBénGrbrdaß)al edh,RKbRKgnUral karKm⁶hgd⁷F⁸pl ;
brisßn nñg)anCamU danRK⁹ld¹⁰gmaM¹¹St¹²bnarkeCakC¹³yel karRKbRKgCl/cM¹⁴enAkj¹⁵dn;
emKgA Sm¹⁶bN¹⁷RbeTsenAkjGagTenomKg¹⁸pt¹⁹xageRkam kicßBmerBogq²⁰M 1995 begit eGay
mannueKal karN²¹RbRKgbrisßn Edl CamU danRK²²ld²³yedh,bFkarGPiD²⁴daymanninßPaB
I bObMatPaBRkRk nigkarBard I Cl/PaBrSenA. karGPirkSCl/cM²⁵anRtU)anEcgc,as;l as;
eLy kñenþamanenAkjgeKal KM²⁶Edl RtU)aneKGm²⁷rþeTAehly.

kjgkicßBmerBogq²⁸M 1995 kñnbgoj pgEdrnURkbx²⁹ledh,ClydI karRbtbt³⁰GnsBaßGnþCati
SBI }Cl/cM{ Edl zitkjbrb³¹TenoromKgA ral]bkrN³²Lay Cabess GnsBaßSBI
}Cl/saRs³³hM{ TamTareGayeKrkeGayeXlj nigC³⁴j eGay)ankanEtsRkitübEnþeTot .

] TahrNéñKbRgnuth^{3/4}

karRKbRKgnUral bBæþkgrbsvísýC I pl

eyagtamK] TahrN^{3/4} CaeRchénRbBRKbRKgvísýC I pl enAkýTenomKgÁ Kúj BKmitþ -
epþRKbRKgtamEbbshKmn^{3/4} dán. enATkEngNa nigeBI NaEdI shKmn^{3/4} sman
esþPab ehlyeTahCaGkeRbR)asRKbRKgFnFantamRbB^{3/4}EbbRb eBNI rnb^{3/4} beN^{3/4}Gasní^{3/4}
k^{3/4}day k^{3/4}anC^{3/4}yefH GayCl/c^{3/4}mannirnþPaBEdr. CakarK^{3/4}Gayesakshy EdI enAman
shKmn^{3/4}aerchCanicRai BI^{3/4}acs^{3/4}bs^{3/4})anCamLyngsmaFénkarGPiDAn^{3/4}CaBess smaFén
k^{3/4}NhRbCaCn. RbsnebB^{3/4}mankarC^{3/4}sRmbsRm^{3/4} BlshKmn^{3/4}nbCatéTenah shKmn^{3/4}ehI
CaminGacS^{3/4}gecj nUral esck^{3/4}ltUkarsh^{3/4}beF^{3/4}GaymannirnþPaBdI FnFanq^{3/4}Edn)aneL^{3/4}ly.
karrh^{3/4}baf^{3/4}KánURbB^{3/4}EbbshKmn^{3/4} dánEdI dakeGayd^{3/4}lkaredaymankarshkarN^{3/4}amLy
rdaP^{3/4}al)anbg^{3/4}j eGayeX^{3/4}j faCameFüa)ayd^{3/4} b^{3/4}beF^{3/4}karRKbRKgnUral kareRbR)asFnFan .

] TahrN^{3/4}karRKbRKgC I pl m^{3/4}Y EbbepSgeTotenAkýGagTenomKgEdI RtU)anGnurþdayRb
eTskm^{3/4}a K^{3/4}KbRKgtaml k^{3/4}N^{3/4}RbB^{3/4}L^{3/4}ensaT . RbB^{3/4}Ebbxagel enHmanRbs^{3/4}T^{3/4}abNas;
edayeF^{3/4}GayGkeRbR)asmanT^{3/4}cit^{3/4}karBarFnFan. CamLyKáenH rdaP^{3/4}al TTY)anR)akc^{3/4}NU
BRbB^{3/4}RKbRKgxagel Iehlyvak^{3/4}anc^{3/4}QaneL^{3/4}k^{3/4}karkarBarFnFanpgEdr. RbB^{3/4}xagel enH
yagehacNas; vak^{3/4}acnam^{3/4}knus^{3/4}skn^{3/4}B I C^{3/4}yeGaymanpl c^{3/4}Nj r^{3/4}hK^{3/4}EdI)anmkBFnFan
tamry^{3/4}karRbm^{3/4} B^{3/4}eGayeTAdI shKmn^{3/4}amLy . RbB^{3/4}enHk^{3/4}anbg^{3/4}j eGayeX^{3/4}j nURbB^{3/4}
CasManpgEdr^{3/4} -k^{3/4} p^{3/4} eGayneUs^{3/4}Et kareFn^{3/4}nsaTmankarRt^{3/4}Brítü -x^{3/4} FnFanmant^{3/4}
yagsMan; nig -K^{3/4} rdaP^{3/4}al TTY s^{3/4}l yagBitR)akdnUtl^{3/4} rbsFnFan .

RbB^{3/4}L^{3/4}ensaT^{3/4}egteGaymannvePaKsm, t^{3/4}dl manT^{3/4}makT^{3/4}gKámypgEdr)karsh^{3/4}ts^{3/4}{
rvagGkeRbR)asFnFanCamLyngs^{3/4}skn^{3/4}B I EdI Ca^{3/4}T^{3/4}I d^{3/4}man. CakEs^{3/4} karpl^{3/4} si^{3/4}taeGay
}m^{3/4}{ L^{3/4}RKbRKgel kareF^{3/4}gaCl^{3/4}kmp^{3/4}GaymannirnþPaBk^{3/4}AEtCaRbFanbTmLy^{3/4}beF^{3/4}kar
BPakSaK^{3/4} b^{3/4}nh^{3/4} yagehacNask^{3/4}enah^{3/4} bg^{3/4}j eGayeX^{3/4}j BkarephneL^{3/4}gn^{3/4}ukarkarBardI ;
bris^{3/4}np^{3/4}Edr nig^{3/4} nUml^{3/4} dánkargarbEn^{3/4}heTot .

] TahrN¹⁸nkarrkchm¹⁹epSgeTotk¹⁹TisedARKbRKgenATen¹⁹mKgÁ K¹⁹areRbR)asnUc¹⁹NHdg tamEbbRb¹⁹Gk¹⁹l¹⁹EF¹⁹camU danRsaRCav nigkarbegitec j n¹⁹neya)ay¹⁸. Ta¹⁹nenH)annam eTarkmeFüa)ayd¹⁹anRbsTPabm¹⁹sh¹⁹TTV)anB¹⁹man nigkarTTV sál eGay)ankanEtTU M TU ayercheL¹⁹EfmeTotnU¹⁹ visal PaB nigmanTMak;TMgd l kary l dg tammU dan. c¹⁹NHdg¹⁹enHr¹⁹bBa¹⁹P Ta¹⁹Rbvt¹⁹sF m¹⁹ati nigCl¹⁹c¹⁹. TisedAenH RbshebeF¹⁹karGPiD¹⁹A¹⁹eGay)aneBj el j van¹⁹naTarkkarRKbRKgm¹⁹besr. TisedAenH¹⁹ngbegiteGaymannU mU danRK¹⁹id¹⁹besh¹⁹daymankarcU r¹⁹b¹⁹ls¹⁹nakG¹⁹erB¹⁹R)asFnFantamEbbRbB¹⁹RKbRKgFn- FannaeB l GnaKtm¹⁹pgEdr.

QanBTMak;TMgeTarkkarRKbRKgel b l bHBal sk¹⁹n¹⁹pt¹⁹énRbePTRt¹⁹Rs¹⁹ Cam¹⁹ny¹⁹BC rW RbePT¹⁹énRt¹⁹k¹⁹Rs¹⁹ manÉksarEd l)anktRtabBak,fadlm,ef¹⁹GayTTV)anC¹⁹yCMHK¹⁹t¹⁹et¹⁹erbl R)asnUc,abGnuth¹⁹¹⁹}Code of Practice{. eKal karN¹⁹Ta¹⁹nenH Kb,RtU)aneKeRbeF¹⁹camU dan bEg¹⁹kel karBicarNaBb l bHBal sk¹⁹n¹⁹pt¹⁹énkarENnaM nigkarbEg¹⁹n¹⁹kt¹⁹tesenTicEd l na¹⁹Gay manpl bHBal eTad l RbePTesenTicepSg². yagNamij sar³S¹⁹ManrbSyaRtgfa RkmTa¹⁹nenH RtU)aneKEkerbedaymankarcU r¹⁹b¹⁹RbG¹⁹BakB¹⁹TTA B¹⁹fakd¹⁹n; nigmU dan. ral]bsK¹⁹na eB l b¹⁹l¹⁹K¹⁹l¹⁹nedaysarKpmmeFüa)ayeF¹⁹GayRbesteL¹⁹benalleT p¹⁹yeTAvij edaysarEt¹⁹x¹⁹ n¹⁹karC¹⁹ij el kT¹⁹cit¹⁹dm,h¹⁹geRbR)asnUral meFüa)ayTa¹⁹nenH.

karRKbRKgk¹⁹tbri¹⁹s¹⁹

Caesck¹⁹l¹⁹ard¹⁹Macb¹⁹l¹⁹tenATen¹⁹mKg¹⁹nt¹⁹ef¹⁹karRKbRKgeGay)ansmRsbnUral RbPBvarFn- FanTa¹⁹LayeGayzitenAk¹⁹gbrb¹⁹l¹⁹Edl Gacman l¹⁹mgd l esck¹⁹l¹⁹ukarrbsG¹⁹erB¹⁹R)as¹⁹T¹⁹TA CaBessc¹⁹Ba¹⁹F¹⁹nFanT¹⁹. r¹⁹b¹⁹Ba¹⁹Cam¹⁹ny¹⁹bBa¹⁹xagel bnHK¹⁹amTarnUkarRKbRKgeGay)an kanEtRbesteL¹⁹gel hal pl bHBal Ep¹⁹bris¹⁹ng¹⁹Edn. RbPBFnFanFm¹⁹catd¹⁹l¹⁹bl¹⁹tenA k¹⁹GagTen¹⁹mKg¹⁹inEmnEtCI pl nigRSUb¹⁹N¹⁹HeT K¹⁹l¹⁹x¹⁹Épg¹⁹Edr. karGPiD¹⁹A¹⁹PaB enAk¹⁹GagTen¹⁹mKg¹⁹l¹⁹sl¹⁹k¹⁹rg¹⁹gn¹⁹npAbd l varC¹⁹mk nigCl¹⁹c¹⁹Edl RRTTg¹⁹K¹⁹eTAvij eTAmkenH n¹⁹RtUB¹⁹Ep¹⁹KT¹⁹Rs¹⁹geT¹⁹Ael II TPabrb¹⁹s¹⁹bN¹⁹beTsBakB¹⁹T¹⁹ubhdm,H¹⁹K¹⁹ef¹⁹karRKbRKgFn-

¹⁸ Bao et al., 2002

¹⁹ Coates, 1995b

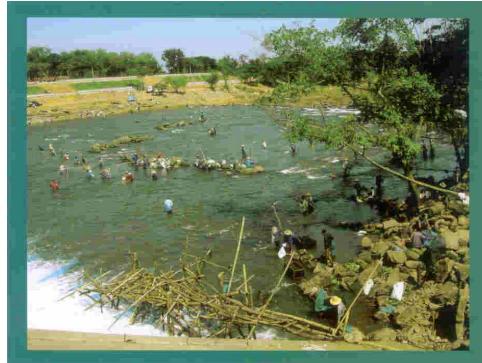
FanT^hkeGay) an smRsb T^hukM^hf^hkCati nigkic^hShkarqgRbeTs. rÉf^hækbec^hTsvij TamTareGaymanneya) ayS^hBkareRbR) asFnFanT^hk k^hntCaPnkarsM^hbGagTabM^h .

karBicarNaetAel b^hsck^hitUkarrbsvis^hC^hp^h nigClvch^hEd^h Cam^hd^hnbEg^hKrb^hbsvaenah ngrh c^hNkyags^hManedh^h, eq^hat^hTAs^hceGay) annUTisedAd^hFgTabgenah. karBicarNaCabzm K^hffa vis^hC^hp^h) aneF^hGaymankarCECKEvkEj k^hkyagerchenAel h^hU d^hanesdkic^hS^hg^h nigClvch^h edh, bF^hkarRKbRKgFnFanT^hkeGay) ankanEtRbesheL^hg. karGPirkSClch^henAGagT^henomKgA tRm^hveGaymankarTTV^h s^hl n^hukarBit CakEs^hkanEt) aneBj e^hl j e^hL^hg. k^hjkic^hS^hrkkar GPvD^hAn^hGaymannr^hP^haB manp^h RbeyaCn^hyageRchRkasERk^h Ed^h RtUTTV^h) antamry³P^haB rh^hK^hCaedK^htrvagG^hCh^hmaj }C^hp^h { }bris^h{ nig }Clvch^h{. kareF^hGayRbesheL^hg enAetRtU) aneKTTV^h s^hl f^hakb, mnRt^hveGaymanR^hdnk^hn trvagvis^hTa^hGsenalleL^hy.

esckþnðan nigGnðasn^{3/4}

- 1- karenSaTRtKBHankarkHmKlhgFÍFid I ClvcllénAkjgTenøLly - GacmkBkarxþxat
brisin.
- 2- tVhaThmánsar³sManEdl C1 pl TenøanedrtYkjkarEfrkSavarClvcmH Kñtuetcmj bEnñ
eTotehlyeGay)ankanEtTU mu ay. karKlbBakBlsar³sManrbssvisY C1 pl dI ;
snþkes,og nigClPaBrsenA)anbegitteGaymankarBPaKsEvKEj kyagtantyedh,I
rHrkntWfIsarsPKbRKgvarbrisþneGay)ankanEtRbesteLbj.
- 3- manPaBxuþKiyageRchrvagC1 pl TenøigC1 pl smRTeTAel VFIsaRsþnkareFÍGaCl/kmp
karcll rth karEbgEckpl RbeyaCnWdæc©nigpl bHBal dI ClvcmH. tamkarsnðan
Edl)anTaj ecj BC1 pl smRT KñtueRtV)aneKykmkGnutþamYnigC1 pl Tksab
eLly.
- 4- skmPaBensaTGacmanpl bHBal CaGvChandl ClvcmH. BrgykargarRKbRKgGaCl/kmp
ensaTdaysRmY eGaymankareB)asRbePT] bkrNñsaTsmRsb Kb,RtUcmj
edayEpkeTAel bkal edAshRKbRKg. ral Kñtipeþplndl kargarRKbRKgTamTareGay
ephtCasManeTAel EdnCmK nigRbePTTayLayNaEdl zitenAerkamkarKñmKlhgyang
FÍFid.
- 5- RbBñLttensaTKb,RtUeFikarvaytM eGay)anRtñRtuedh,bEikarsMccitfaetlaGacCa
vFIsaRsþmRbsiTþaBmYsMbeFíGaymannirnþPaBd I ClvcmHgt; karsksaKb,rh
bBaþnukareRtHñBcarNafaetkareFíGaymansmFmsgñ nigmannirnþPaBd I ClvcmH
KñtansMandac²edayELKBKñwagNa. RbBñenHmanpl RbeyaCnðaeRchkjgRkbxu
GnþCatingGacCavFIsaRsþmbeFikarRKbRKgbbrisþneGay)anRbesteLbj.
- 6- Kb,RtUcmj bEnñheToteGayntEt)anTU mu ayñukareB)asCñNHdgjeGkllþbñl dan
sMabCamefü)aayeFikarRsavRCav nigCaynþkaredh,bGaymankarcJ rthkjkarRKbRKg
)ankanEtRbesteLbj. Kb,bFíGaymankarTTW sÁl)ankanEtErchEfmeTotGþlsar³-
sManençNHdgCamu dannural RbFanbTEd I Tak;TgeTAnjClvcmH.

- 7- ral yFankarN³KbRKgENnaM r³g³tbeRgonG³BC r³bePTerKARskKb, hnbBaPnUkar
BicarNad I PaBxisKénesenTc nigCaBess G³Cl/c³énFnFanFm³ati. I T³I
GacS³c)antamry³karGPiDAn³ngs³ManCagenHeTotenah K³amkarGnvt p³URkmkargar
edayerbhUkarvayt³ BlskmpaBRbePTénB³erKARskm³ngs³ceFikarENnaM GayerbI
Rjas;
- 8- varvb,kmKb,RtUmankarRKbRKgedlm,bCosvagnUp I bHbaI CaGvCmnd I Clc³M. \T³
B I GvCmanGacbN³l mkBkarr³ecj n³RbePTRthatt³ nigkarb³ib³aj EdnC³k
-dbCakarERbkoyéRBekagkageTACaRSHbgfr!.
- 9- Kb,bFI³GaymankarTTV s³A kanEtTU³ ay nigeRbR)asnUral meFüa)ayEd I man
edh,C³m eGaykarRKbRKgvis³C I plmanninhpab edayKiteTAd I ;T³akarykcit³lk
dakel hal esck³UkarénClc³M. bEnhel kcr³meRBogq³1995 s³Bkar }GPiDAn³/
eGaymanninhpabenAk³GagTenemKg³ bTdanmlych³hrhman }Rkmsil Fms³bkar
TTV xisRtW³C I pl { EdI eroberogeL³gedayG³kar FAO enAq³1995 GnisBa³
s³B{Cl/sars³C -CaBess karC³m el hal karCabBakB³ik³karRKbRKgvis³C I pl ;
nig GnisBa³s³B{RbePTb³ as;T{.
- 10- eFI³karBn³estertL³gyjj nUral yFankarN³ nigvFls³Rs³nuth³laEd I smRs³b
nigca³ac; edaysresr nigEckpSayCaPasangrl³PaBGkSrEd I GaceFI³GayTsSnkCn
gayy I)an -dayr³hbBa³T³G³keRbR)asFnFanpg!. vFT³ffenHrhmankareyageTA
dI G³d I bBakBCl/c³M eh tG³anCavamsar³s³Man; nigfaetlaGacrg\T³I CavC³nan
nigGvC³man yagdt³em³ptamry³skmpaBRKbRKg.



bBabEgk

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