mımı∫ (Mermish)

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# Contents

# Backstory

# 1.1 General Backstory

Society of mer-people (meeple, or merson in the singular), who split off from humans before human development of language, so not influenced by human language. Influenced by what sounds carry underwater (e.g. fewer stops, more vowels, nasals, clicks) and how other sea creatures communicate (e.g. whales, clownfish). Used to live closer to coasts, but are now deep sea dwellers, so ocean surface is where dead things go and where danger is, but also where food comes from. Northern Atlantic Ocean off the coast of Newfoundland (that's where I got the rising and falling tide times for the time sentences).

There is currently no written form of the language.

# 1.2 Biology

6 fingers on each hand (2 opposable thumbs, same other 4 fingers as humans (webbing between pairs of fingers so pairs can work as a unit but also hands can be used for paddling in water) (see Appendix ?? for illustration); gills inside the body, so lungs are used to move water past the gills and hold water the same way humans hold their breath); tail-fins come in colors usually blue/purple or sometimes dark red; no gender or sex, baby mersons are made by one single parent just wanting it really badly.

# 1.3 Daily Life

Mostly hunting for food, since they live in open ocean/deep sea (esp. since human developments made it unsafe to be near the coast because humans pollute and are also liable to hunt you for food and sport); poor eyesight, so more words for smells/sounds as well as orientation wrt the earth (magnetic fields); lots of human cargo ships lose cargo in the ATlantic, and they're interested in what they find because htey can sometimes be useful but also it just adds to the ocean trash situation which is not good; because of their need to remain undetected and mobile, they don't keep a lot of unnecessary items.

# 1.4 Society

Everyone is mostly spread out because there's space to do that in the ocean, but "highway" travel via currents (e.g. Gulf stream); mostly live in nomadic tribes (pods, like whales) that belong to geographic kingdoms, but distance means royalty is not relaly part of daily life; generally peaceful, since there's a lot of pressure to exist off humans' radar and survive in over-fished oceans.

### 1.5 Values

Good things are associated with ocean currents, which bring warm and nutrient-filled waters as well as food and a means of travel; storms are not good because the rain and turbulent water makes it hard to hear at a distance; whales are very good because they are a source of food and are mysterious and majestic.

# 1.6 Mythology: 3em and safi

The story of the oceans goes something like this:

Back when the world was young, the earth was bored and wished to fill the world with creatures to watch over. But the world is a big place, and filling it would take time, so Earth called on all their children to help them. To their youngest children,  $3\varepsilon$ m and safi, two giant saltwater catfish, they gave the responsibility of filling the oceans.

3ɛm and safi soon began to struggle with their tasks. Their personalities were just too different, and all they could agree to make in those first days were flatworms and sea cucumbers. So they spoke to Earth, who divided the oceans between the two.

To 3ɛm, they gave all the places the light could touch under the water. 3ɛm, who loved to run and play and especially loved to eat, crafted his world in his vision. He filled the coasts and the reefs with millions of different fish so he'd never get bored, and filled the open ocean with huge schools of fish so he'd never go hungry.

To safi, the Earth gave the deepest parts of the sea, where light would never reach from above. safi, who had a deep love of sleeping, dozing, and napping, took her time. As 38m created every variation of fish and crustacean he could imagine, safi slept. While she slept, she dreamt. And out of those dreams crawled the strangest, most bizarre creatures to grace the planet.

Eventually, zem's creations drew hungry humans to the water, and the merpeople retreated away from the abundance and variety of zem's waters to the safety of sofi's dark and strange domain.

# 1.7 Metaphors

Whales: live in pods and are mysterious because they spend time above/near the surface (where mer-people can't/dont go because they can't breathe air and are afraid of humans) to breathe, then make deep dives for food (so they live both at the surface and in the deep); too big for meeple to hunt, but are a windfall of food and resources when they die.

Conceptual metaphor: People (target) are whales (source)

- 1. he's breaching  $\rightarrow$  he's taking a risk for unknown reason (dating back to before mermaids realized whales need to breach to breath)
- 2. a dolphin  $\rightarrow$  someone who isn't a useful resource to the tribe (based on the premise that dolphins are fake tiny whales)

Conceptual metaphor: Opportunities (target) are whales (source)

- 1. a fat opportunity  $\rightarrow$  an opportunity that yields large positive results
- 2. a diving opportunity  $\rightarrow$  it's coming closer (time-wise) / getting closer within the realm of possibility

## 1.8 Time

Time is usually not precisely told, so it's reported to the closest hour. When discussing lengths of time, it's acceptable to use fractions of hours (e.g.  $meet\ me\ in\ 1/3\ hour$ ), and then most people just estimate how long that is as timekeeping is a difficult art underwater.

The numbers six and 12 are important to these meeple, as each merson has 12 fingers, or six sets of webbed pairs (see Appendix ??). Each year is divided into five months, each named after an animal historically hunted in that month. Each month has six  $aih\varepsilon$  ("weeks") of twelve  $ainh\varepsilon$  (days) each and with 5 days at the end of the year not in any month. The days of the week are named after fingers on the hand, starting from right to left.

The time system is based on the tides, dating back to when this civilization lived close enough to the coast to be affected by the tides. Even though they have moved away from the coasts toward open ocean and the deeps, they still use the established system of keeping time.

Each day is divided into 4 sections of six hours, originally based off the tidal schedule. Each hour has (about) 60 minutes (like human hours). The first section of the day starts around what we'd call 5:00 AM. Time is told

by how many hours into a section have passed.

Time (human)	Language (IPA)	English (literal)
5:00-11:00	ziʒɪm	rising tide
11:00-16:00	sazım	falling tide
16:00-23:00	aŋziʒɪm	second rising tide
23:00-5:00	aŋsaʒım	second falling tide

Table 1.1: The four sections of the day

# Phonology

# 2.1 Inventory

	Labial	Labiodental	Dental	Alveolar	Palato-Alveolar	Velar	Glottal
Nasal	m			n		ŋ	
Plosive	$p p^h$			$\mathrm{t}\ \mathrm{t}^h$		$\mathbf{k} \; \mathbf{k}^h$	
Affricate							
Fricative		f	θ	s z	∫ 3	X	ĥ
Approx.				$\mathbf{r}$			
Lat. approx.				l			
Glide	w						
Click	0				!		

Table 2.1: Consonants

	Front	Central	Back
High	i i: y y:		uı uı: u uı:
Near-High	I II		υυ
High-Mid	e er		
Mid		<b>2</b> 6 6	
Low-Mid	13 3		$\Lambda\Lambda$
Near-Low	ŒŒĬ		
Low			a a:

Table 2.2: Vowels

# 2.2 Phonological Rules

In order of application:

- 1.  $(C/V)_1 \hat{\ } (C/V)_1 \to C_1$ : / \_\_\_ Adjacent identical sounds across morpheme boundary changes into sound + long. e.g. vm:i + ini  $\to$  vm:i:ni
- 2.  $\varnothing \to [\varepsilon] / C_{[+manner1]} \_ C_{[+manner1]}$   $\varepsilon$  epenthesized between adjacent consonants of same manner of articulation at morpheme boundary e.g.  $\eta e = + \sin \omega \to \eta e = \sin \omega$
- 3.  $C_{[+stop]} \to C_{[+nasal]} / \_ (C/V)$ Stops change to nasals when they are not word-final e.g.  $ak^h + zizim \to anzizim$

NB: order of application matters!  $\begin{array}{l} {\rm ak}^h + {\rm grap}^h \not\to {\rm agegrap}^h \\ {\rm ak}^h + {\rm grap}^h \to {\rm agrap}^h \end{array}$ 

$$ak^h + nap^h \rightarrow anap^h$$

### 2.3 Syllable Structure

Allowed Syllable Structures:

- $1. \ (C_{[-stop]})(C_{[-stop]})V$
- $2. \ V(C_{[-stop]})(C_{[-stop]})(C)$
- 3. (C)
- 4. V\*
- 5.  $V * (C_{[-stop]})V *$

Stops must be word-final.

# Counting and Numbers

## 3.1 Numerals

The number system of this language is in base 12, because each hand has 6 fingers (see Appendix ??). Numbers 0-12 have their own words, numbers 13-15 are compounds with some irregularity, and all numbers beyond are also compounds formed the same way but regularly. Compounds take the form number + /fie/ ('and' used for adding numbers) + number. 24 is its own word, and other multiples of 12 are compounds of the form k twelve.

	Language	English (literal)		Language	English (literal)
1	ու	one	13	anfieu	twelve and one
2	$ak^h$	two	14	anfiea	twelve and two
3	sa	three	15	an fies a	twelve and three
4	рез	four	16	anfieŋeʒ	twelve and four
5	$\mathrm{m}\mathrm{v}\mathrm{t}^h$	five	17	${\rm anfiem}{\it vt}^h$	twelve and five
6	$\operatorname{emp}^h$	six	18	$\operatorname{anfieemp}^h$	twelve and six
7	eiə	seven	19	anfieriə	twelve and seven
8	esl	eight	20	anfiersl	twelve and eight
9	fii	nine	21	anfiefii	twelve and nine
10	is	ten	22	$\mathrm{anfieir}^h$	twelve and ten
11	fʊf	eleven	23	anfiefuf	twelve and eleven
12	$\mathrm{at}^h$	twelve	24	$\widehat{\mathrm{hvtJ}}$	twenty four
			25	hʊt∫ĥeɦʊ	twenty four and one

Table 3.1: Some number examples

Numbers modifying nouns agree with the nouns they modify in number and case and appear after all adjectives modifying that noun.

### e.g. four hours

```
1. xenfie ŋeʒfie
  хen
         -fie
                         -fie
                   рез
  hour
         -NOM.PL four -NOM.PL
  hours
  'four hours(NOMINATIVE)'
2. хепл резл
                   пез
  hour
         -ACC.PL four -ACC.PL
  hours
                   four
  'four hours(ACCUSATIVE)'
```

```
3. xensfe nezsfe
```

```
x \in n -sf \in ne3 -sf \in nor hour -POSS.PL four -POSS.PL its-hours its-four 'four hours(POSSESSIVE)'
```

## 4. хепә резә

# 3.2 Ordinals

Ordinals do not agree with the nouns they modify in case and number. Rather, they are formed by attaching to the beginning of nouns they modify as a clitic.

e.g.

```
1. rising tide : zizım second rising tide : ak^h + zizım \rightarrowaŋzizım
```

```
2. fish: ∫:e∫:
```

```
second fish: ak^h + fief: \rightarrow anfief: third fish: sa + fief: \rightarrow safief: eighth fish: esl + fief: \rightarrow eslfief:
```

25th fish: huthehu +  $fef: \rightarrow huthehu fef:$ 

# Noun Morphology

# 4.1 Singulars, Duals, And Plurals

For singular and dual nouns, if no number is included then it is an implicit one or two respectively. For plural nouns, either a number must be specified or the word slix, meaning some unspecified amount, must be used. e.g.  $red\ tail$ -fin(s)

```
saip^h flims
saiph^h
                    ſlims
tail-fin -NOM.SG
                    red
                           -NOM.SG
tail-fin
                    red
'red tail-fin'
saım: Ilmsm
saım
         -m
                    ∬lms
                           -m
tail-fin -NOM.DU
                    red
                           -NOM.DU
tail-fin -s
                    red
'(two) red tail-fins'
saımfie İlimsfie safie
         -fie
                                             -ĥe
saım
                    ſlims
                           -fie
                                      sa
tail-fin -NOM.PL red
                                      three -NOM.PL
                           -NOM.PL
tail-fin -s
                    red
                                      three
'three red tail-fins'
saımfie flimsfie slixfie
saım
         -fie
                    ſlims
                           -fie
                                      slix
                                             -fie
tail-fin -NOM.PL
                           -NOM.PL
                   red
                                      some
                                             -NOM.PL
tail-fin -s
                    red
                                      some
'some red tail-fins'
```

# 4.2 Case Endings

Nouns have **number** (singular, dual, plural) and **case** (nominative, accusative, possessive, and adpositive (used in adpositional phrases)). The number and case are indicated with suffixed morphemes, where each combination of number and case has a different morpheme. The nominative singular form is marked with a null morpheme.

## 4.2.1 Accusative Case

The accusative case is most often used without an adposition to indicate a noun is the object of a transitive verb. e.g.

Number	Nominative	Accusative	Possessive	Adpositive
SG	-Ø	-aı	$\mathrm{rt}^h$	<b>-</b> a
DU	-m	-ia	-we	-i
PL	-fie	-J	-sfe	-9

Table 4.1: Case endings

```
saidi filmsdi
sai -ai films -ai
tail-fin -ACC.SG red -ACC.SG
tail-fin red
```

## 4.2.2 Nominal Possession (Possessive Case)

Possession is shown by marking the possessive case on the possessed, with no marking on the possessor. Possessed nouns can be **alienable** or **inalienable**, which affects the word order within the noun phrase. Alienable nouns appear before the possessor, and inalienable nouns appear after the possessor.

```
\operatorname{saip}^h \operatorname{newhit}^h
saip^h
                                  -it^h
          -Ø
                      ηεwhi
tail-fin -SG.NOM color
                                  -SG.POSS
tail-fin
                      its-color
'tail-fin's color'
fefrith wlath
                       wlat^h
ſĸeſĸ
fish
          -SG.POSS
                      1.SG.PRO
its-fish
                      it
'its fish'
wlat^h hemuut^h
wlat^h
             бетш
                         -it^h
1.sg.pro head
                         -SG.POSS
             its-head
'its head'
saip^h newfirth
saip^h
                                  -it^h
                      ηεwhi
tail-fin -SG.NOM color
                                  -SG.POSS
tail-fin
                      its-color
'tail-fin's color'
```

In the examples above, a fish is not inalienable to a merson (mer-person), but color is inalienable to a tail-fin and a merson's head is inalienable to a merson. Comparison between examples 2 and 3 demonstrates the word order difference between alienable and inalienable possessives.

Nominal possession can be applied recursively, where the possession is applied first to the head, then to each possessor. A brief example:

'my fish's color'

For more examples of recursion, see Section ??.

## 4.2.3 Adpositive Case

e.g. indirect object

This case is taken by nouns in adpositional phrases. The adposition is in most cases clitics (postposition) positioned after the last word in the adpositional phrase. These are can be used used to indicate a location, position, indirect object, or more.

```
f:ef:amat<sup>h</sup>
∫:e∫: -a
                -mat^h
fish -SG.ADP -IO.POST
fish
                to
'to a fish'
f_{i} = f_{i} = f_{i}
ſzeſz -i
                 -mat^h
fish -DU.ADP -IO.POST
fish two
                to
'to two fish'
    e.g. instrument
anılziasi
anılzi
                        -si
              -a
whale-bone -SG.ADP -INSTR.POST
whale-bone
                        using
'using a whale-bone'
anılzi:si
anılzi
              -i
whale-bone -DU.ADP -INSTR.POST
whale-bone two
                        using
'using two whale-bones'
    e.g. in
∫te∫tasæ
ſzeſz -a
                -SŒ
fish
     -SG.ADP -INE.POST
fish
                in
'in a fish'
∫ie∫iə slixəsŒ
∫ze∫z -ə
                slix
                                 -SŒ
fish -PL.ADP some -PL.ADP -INE.POST
fish
                some
                                 in
'in some fish'
    e.g. into
ſæſæsei
ſːeʃː -a
                -sei
fish -SG.ADP -ILL.POST
fish
                in
```

'into a fish'

## 4.3 Pronouns

Pronouns have **number** (singular, dual, plural), **person** (1st, 2nd inclusive, 2nd exclusive, 3rd), and **case** (nominative, accusative, and adpositive (used in adpositional phrases)). Meeple (mer-people) do not have gender or sex, as is reflected in the language, so third person singular pronouns are applied the same to all individuals and also things. Pronouns do not have a possessive case because people cannot be owned (relation is not shown through possession).

Number	Person	Nominative	Accusative	Adpositive
SG	1	$\mathrm{wlat}^h$	wlanaı	wlana
	2	zem	remar	zema
	3	3a	3aa1	zaa
DU	1 inc	$\mathrm{slap}^h$	slamiı	slami
	$1  \mathrm{exc}$	slan!	slaniı!	slani!
	2	zea	zeaiı	zeai
	3	$\mathfrak{z}\mathrm{ent}^h$	3en:i1	ʒεn <b>x</b> i
PL	1 inc	nε∫	ne∫ı	nɛ∫ə
	$1  \mathrm{exc}$	nε∫!	ne∫₄!	ne∫ə!
	2	sεi	seiı	seiə
	3	$\mathfrak{z}\mathrm{eint}^h$	zeinu	zeinə

Table 4.2: Table of Pronouns

```
e.g.
\int \mathbf{x} \mathbf{e} \int \mathbf{x} \mathbf{t}^h \ \mathbf{w} \mathbf{l} \mathbf{a} \mathbf{t}^h
                                    wlat^h
ſĸeſĸ
fish
                -SG.POSS me
its-fish me
'my fish'
∫ie∫iit<sup>h</sup> ʒa
                -it^h
ſĸeſĸ
                                    3a
fish
                -SG.POSS it
its-fish it
'its fish'
\int \mathbf{x} \mathbf{e} \int \mathbf{x} \mathbf{t}^h \operatorname{slap}^h
                                         slap^h
ſæſ
                -it^h
fish
                                         1.DU.INCL
                -SG.POSS
its-fish you-and-me
'our fish'
\int \mathbf{x} \mathbf{e} \int \mathbf{x} \mathbf{t}^h \, \mathbf{slan!}
                -it^h
ſĸeſĸ
                                                            slan!
fish
                -SG.POSS
                                                            1.DU.EXCL
its-fish two-of-us-but-not-you
'our fish'
```

To see how possession works in these examples, see Section ??.

# Noun Phrases

## 5.1 Possession

e.g.

Possession is shown by marking the possessive case on the possessed, with no marking on the possessor. Possessed nouns can be **alienable** or **inalienable**, which affects the word order within the noun phrase. Alienable nouns appear before the possessor, and inalienable nouns appear after the possessor.

```
\operatorname{saip}^h \operatorname{newhit}^h
saip^h
                                         -it^h
                           ηεwhi
tail-fin -SG.NOM
                           color
                                         -SG.POSS
tail-fin
                           its-color
'tail-fin's color'
saip^h newfirth
saip^h
                                         -it^h
                           ηεwhi
tail-fin -SG.NOM
                           color
                                         -SG.POSS
tail-fin
                           its-color
'tail-fin's color'
\int \mathbf{x} \mathbf{e} \int \mathbf{x} \mathbf{t}^h \ \mathbf{w} \mathbf{t}^h
                           wlat^h
ſæſ
fish
            -SG.POSS
                           1.SG.PRO
its-fish
'its fish'
wlat^h hemuit^h
wlat^h
                бетш
1.SG.PRO
               head
                              -SG.POSS
it
                its-head
'its head'
```

In the examples above, a fish is not inalienable to a merson (mer-person), but color is inalienable to a tail-fin and a merson's head is inalienable to a merson. Comparison between examples 2 and 3 demonstrates the word order difference between alienable and inalienable possessives.

Nominal possession can be applied recursively, where the possession is applied first to the head, then to each possessor. A brief example:

For more examples of recursion, see Section ??.

## 5.2 Recursion

e.g.

e.g. all

Nominal possession can be applied recursively, where the possession is applied first to the head, then to each possessor, applying the ordering rules for alienable/inalienable nouns. For cases of multiple levels of recursion in the same noun phrase, word ordering can lead to ambiguity. Thus, for complex recursive nominal possession, any important words in the phrase are pulled to the beginning of the sentence and the rest of the possessive phrase is left to the audience to be understood from context.

```
\operatorname{saip}^h \operatorname{newhit}^h
saip^h
           -Ø
                 ηεwh
tail-fin
                 color
                              -1.SG.POSS
tail-fin
                 its-color
'tail-fin's color'
\operatorname{saimit}^h \operatorname{\eta swhit}^h \operatorname{S:eS:}
                -it^h
saim
                                                               [sef:
                                 ηεwh
tail-fin
               -1.SG.POSS
                                color
                                              -1.SG.POSS fish
its-tail-fin
                                its-color
                                                               fish
'fish's tail-fin's color'
newfith saimith fiefiith ama
             -it^h
                                              -it^h
                                                                          -it^h
newh
                              saim
                                                               ſĸeſĸ
                                                                                          ama
color
             -1.sg.poss tail-fin
                                              -1.SG.POSS
                                                               fish
                                                                          1.sg.poss
                                                                                          parent
its-color
                              its-tail-fin
                                                               its-fish
                                                                                          parent
'parent's fish's tail-fin's color'
```

We know in example 2 that the translation cannot be *fish's color's tail-fin* because color is inalienable, so its possessor comes before it. We can apply this same logic to example 3, also knowing that fish is alienable to parent, so it must be *paren'ts fish's...* rather than *fish's parent...*.

# 5.3 Quantifiers and Definiteness

Quantifiers and definite articles modify nouns and thus agree with the nouns they modify in number and case. For the quantifier nem, even if all of the noun in question is just one, they take the plural. Quantifiers and definite articles are listed after adjectives in use.

```
fiefi flims nem
     -Ø
           flms
ſæſ
                   -Ø
                        n\varepsilon m
fish
            red
                         all
fish
                         all
            red
'all red fish'
    e.g. definiteness
∫:e∫: ∫lims sim
      -Ø
           \int lms
[teft
                   -Ø
fish
            red
                         specific
fish
                         specific
            red
'specific red fish'
\int e^{a} \int e^{a} \int e^{a} da
                                                            -mat^h
ſæſ
                  ∬lms
      -a
                                     sim
                                                -a
fish
      -SG.ADP red
                          -SG.ADP
                                     specific
                                                -SG.ADP
                                                           -textipaio.post
fish
                                     specific
                  red
                                                            to
'to the specific red fish'
```

# 5.4 Adjectives

'two red fish'

e.g.

Adjectives agree with the nouns they modify in number and case.

```
fish
    -NOM.SG
                      -NOM.SG
               red
fish
               red
'red fish'
ſːeʃːm ʃlɪmsm aŋm
∫:e∫: -m
                ∫lıms
                      -m
                                 a\eta
                                      -m
fish -NOM.DU red
                      -NOM.DU
                                      -NOM.DU
                                 two
fish
                red
                                 two
```

Adjectives can be negated in two ways producing two different negations:

- 1. By suffixing  $n\varepsilon_3$  to the adjective stem, meaning not-adjective, as in "not happy, but some other emotion"
- 2. By suffixing nenez to the adjective stem, meaning opposite-adjective, as in "opposite of happy i.e. unhappy"

```
∫re∫r ∫limsne3
∫zeſz -Ø
                  ∬lms
                          -n\varepsilon_3
                                  -Ø
fish -NOM.SG
                  red
                          -NEG
                                 -NOM.SG
fish
                  red
                          not
'not-red fish'
∫:e∫: i:aefnεʒ
∫zeſz -Ø
                   izaef
                           -n\varepsilon_3
                                   -Ø
fish
      -NOM.SG
                  quick -NEG
                                  -textscnom.sg
fish
                   quick not
'not-quick fish'
∫ie∫i ∫limsne3
∫ze∫z -Ø
                  ∫lıms
                          -n\varepsilon n\varepsilon 3
fish
      -NOM.SG
                  red
                          -NEG
                                    -NOM.SG
fish
                   red
                          -opp
'green fish'
∫:e∫: i:aefnεnε3
∫zeſz -Ø
                   izaef
                                   -Ø
                           -n\varepsilon_3
fish
      -NOM.SG
                  quick -NEG
                                 -textscnom.sg
fish
                   quick -un
```

## 5.5 Word Order

'slow fish'

Adjectives modifying nouns appear after the nouns they modify. If multiple adjectives modify the same noun, they all follow that noun. Numbers modifying a noun follow other adjectives. Quantifiers/determiners follow numbers. Alienable possessed nouns (with possessive marker) appear before the possessor, and inalienable possessed nouns appear after the possessor.

```
e.g. ordinal + adjective
```

```
an∫ie∫i ∫lims
          ſːeʃː -Ø
                              \int lims
second fish -NOM.SG red
second fish
                              red
'second red fish'
    e.g.\ possessive\ +\ definiteness
\int \mathbf{x} \mathbf{e} \int \mathbf{x} \mathbf{t}^h \mathbf{x} \mathbf{t}^h \mathbf{x} \mathbf{t}^h
          -it^h
                                                    wlat^h
ſĸeſĸ
fish
          -SG.POSS specific
                                      -SG.POSS me
its-fish
                       its-specific
                                                   me
'my specific fish'
    e.g. possessive + quantifier
ſːeʃː saɪmsfɛ nɛmsfɛ
∫zeſz -Ø
                   saim
                                  -sf\epsilon
                                               n\varepsilon m
                                                         -sf\epsilon
fish -NOM.SG tail-fin
                                  -PL.POSS all
                                                        -PL.POSS
fish
                   its-tail-fin -s
                                               its-all
'all of the fish's tail-fins'
    e.g. possessive + quantifier + definiteness + ordinals + adjectives + numbers + recursion
\int e \int it^h nemit^h ansamwe \int limswe anwe simwe amam sim:
ſĸeſĸ
                       n\varepsilon m
                                -it^h
                                              aŋ-
                                                         saim
                                                                       -w\varepsilon
                                                                                     ∫lims
                                                                                               -w\varepsilon
                                                                                                                       -w\varepsilon
                                                                                                             an
fish
          -SG.POSS all
                                -SG.POSS second- tail-fin
                                                                       -DU.POSS red
                                                                                               -DU.POSS two
                                                                                                                       -DU.POSS
its-fish
                       its-all
                                              second- its-tail-fin
                                                                                     its-red
                                                                                                            its-two
sim
               -w\varepsilon
                             ama
                                      -m
                                                    sim
specific
               -DU.POSS parent -DU.NOM specific -DU.NOM
```

specific

parent -s

its-specific

# Verb Morphology

Verbs have **number** (singular, dual, plural) and **person** (first, second, third), **tense** (past, present, future), **perfectivity** (perfect, imperfect).

# 6.1 Number, Person, Tense

The number, person, and tense are indicated with unique suffixed morphemes, as indicated indicated in the tables below.

PRS	Person	Ending		PST	Person	Ending		FUT	Person	Ending
$\overline{SG}$	1	- $arepsilon  ext{t}^h$	•	$\overline{SG}$	1	-em		$\operatorname{SG}$	1	-iwi
	2	3-			2	-εma			2	-ini
	3	-a			3	-ama			3	-ima
DU	1.INCL	-ems	•	DU	1.INCL	-emsala	-	DU	1.INCL	-ıla
	1.excl	-emsa			1.excl	- $\epsilon$ msalt $^h$			1.excl	- $\mathrm{ilt}^h$
	2	θιυ-			2	- $v$ л $ heta$ а			2	-1θ
	3	$-\mathrm{lrt}^h$			3	-lin <b>x</b> a			3	-ım
PL	1.INCL	-віз-	•	PL	1.INCL	-818=	-	PL	1.INCL	-ειθί
	1.excl	$-ai\theta$			1.excl	$-ai\theta\epsilon$			1.excl	$-ai\theta i$
	2	-eai			2	-earme			2	-ıθl
	3	$-\mathrm{lit}^h$			3	-linre			3	-ıml
			•				-			

Table 6.1: Present, past, and future tense verb endings

```
e.g.
```

'You were hearing.'

```
ſœſIJ slixJ insa
∫ze∫z -л
               slix
                               ins
fish
                               have -3.SG.PRS
     -PL.ACC
              some -PL.ACC
fish
               some
                               have
'He has had some fish.'
ſœſIJ slixJ insama
∫ze∫z -.ı
               slix
                               ins
                                      -ama
fish
    -PL.ACC some -PL.ACC have -3.SG.PST
fish
               some
                               have
'He had had some fish.'
ſœſIJ slixJ insa
ſœſz -ı
               slix
                               ins
                                      -ima
                      -J
fish -PL.ACC some -PL.ACC have -3.SG.FUT
fish
               some
                               have
'He will have had some fish.'
6.2
        Aspect
Imperfective aspect is marked with the /\text{wat}^h/ suffix (attached behind the number-person-tense morpheme). If
unmarked, then aspect is unspecified.
    e.g.
υmziema
υm:i -εma
swim -2.SG.PRS
swim
'You have swum.'
vmziemawat^h
                  -wat^h
      -єта
swim -2.SG.PRS -IMPF
swim
'You are swimming.'
usiama
USI
       -ama
swim -3.SG.PST
swim
'You had heard.'
{\tt us:} {\tt amawat}^h
USI
       -ama
swim -3.SG.PST -IMPF
swim
```

# Verb Phrases

## 7.1 Adverbs

Adverbs can be formed from adjectives by adding the verb ending to the nominative singular adjective (the stem).

```
e.g.
∫:e∫: i:aef
ſĸeſĸ -Ø
                  izaef
                         -Ø
fish -SG.NOM
                 quick -SG.NOM
fish
                  quick
'The fish is quick.'
∫:e∫: i:aefa lɛŋa
                                l\varepsilon k^h
∫:e∫: i:aef
                   -a
fish quick.adv -3.sg.prs
                                flap
                                      -3.SG.PRS
fish quickly
'The fish flaps quickly.'
∫:e∫: i:aef i:aefa lɛŋa
                                       l\varepsilon k^h
∫:e∫: i:aef
              izaef
                                              -a
                           -a
fish quick quick.ADV -3.SG.PRS
                                      flap
                                             -3.sg.prs
fish quick quickly
'The quick fish flaps quickly.'
```

## 7.2 Word Order

Adverbs modifying verbs occur before the verb and agree in number, person, tense, and aspect. e.g.

```
ſːeʃː iːaefa ʊmːia
ſːeʃː iːaef
                           υmːi
                -a
fish fast.ADV -3.SG.PRS swim -3.SG.PRS
fish quickly
                           swim
'The fish swims quickly.'
ſːeʃː sʌiːaefa ʊmːia
ſːeʃː iːaef
            -a
                      υmri
                                  -a
fish NEG-
            fast.ADV -3.SG.PRS swim -3.SG.PRS
fish not
            quickly
'The fish does not swim quickly.'
```

(Negation is discussed in Section ??.)

# Sentences

# 8.1 To Be (Or Not To Be)

Zero copula encoding is mandatory for constructions involving predicate nominals. The order of the nominals is left to the speaker to decide, and tense is understood from context. Ambiguity is resolved through context as well.

```
e.g.
fief: flims
ſːeʃː ʃlɪms
fish red
fish red
'The fish is red.'
∫lims ∫:e∫:
∫lıms ∫:e∫:
red
        fish
        fish
\operatorname{red}
'The fish is red.'
wlat^h enek^h
wlat^h
1.SG.NOM.PRON
                     trash
                     trash
'I am/was/will be trash.'
```

## 8.2 Transitive and Intransitive

### 8.2.1 Active Voice

All sentences are nominative-accusative. For transitive sentences, the subject is in the nominative and the object is in the accusative. For intransitive sentences, the subject is in the nominative. The verb must agree with the subject in number.

```
e.g
naunılfie slixfie naumlinwa\mathbf{t}^h
                                            -lit^h
navnıl -fie
                   slix
                           -fie
                                     navm
whale -PL.NOM some -PL.NOM
                                             -3.PL.PRS -IMPF
                                     sing
whale
       -S
                   some
                                     sing
'Some whales are singing.'
naunilfie slixfie slami\mathbf{1}!amsinwat<sup>h</sup>
                                                               !amsit^h -it^h
navnıl
        -fie
                           -fie
                   slix
                                     slamiı
whale
        -PL.NOM
                   some -PL.NOM
                                    -1.INCL.DU.NOM.PRON
                                                                        -3.PL.PRS -IMPF
whale
                                     two-of-us-but-not-you
        -S
                   some
'Some whales are eating us.'
```

Adpositional phrases follow the subject noun phrase and precede the object.

```
naunılfie slixfie wul\thetaasei um:ilit^h
```

```
-lit^h
navnıl
         -fie
                       slix
                                              w \upsilon \Lambda \theta
                                                                           -sei
                                                                                           υmri
                                                               -a
whale
                                                                                           swim -3.PL.PRS
          -PL NOM
                       some
                                -PL.NOM water-mass
                                                              \boldsymbol{\text{-}}\mathbf{SG.ADP}
                                                                           -into.POST
whale
                       some
                                             water-mass
                                                                           into
                                                                                           swim
```

'Some whales have swum into the water mass.'

anılzi:si lamqsı emimliwi

anılzi -i -si lamas -ı emml -iwi whale-bone -DU.ADP -using.POST hagfish -SG.ACC attack -1.SG.FUT whale-bone -s using hagfish attack

'I will attack the hagfish using two whale-bones.'

### 8.2.2 Passive Voice

In passive voice sentences, the agent is indicated by the adpositive + si, while the patient is in the nominative. Passive voice verbs are indicated by prefixing zis to the verb stem and agree with the word in the nominative in number.

e.g.

 $wlat^h simus emimlenwat^h$ 

 $wlat^h$  simv -. emml - $et^h$  - $wat^h$  1.SG.NOM.PRON iceberg -SG.ACC attack -1.SG.PRS -IMPF iceberg attack

'I am attacking the iceberg.'

sim v wlanasi zisemimlawat<sup>h</sup>

simv wlana -si zis-  $\varepsilon miml$  -a  $-wat^h$  iceberg 1.SG.ADP.PRON -by.POST PASS- attack -3.SG.PRS -IMPF iceberg me by attack

'The iceberg is being attacked by me.'

wlat $^h$  simuasi zisemimlenwat $^h$ 

 $wlat^h$  sim u -a -si zis-  $\varepsilon miml$  - $et^h$  - $wat^h$  1.SG.NOM.PRON iceberg -SG.ADP -by.POST PASS- attack -1.SG.PRS -IMPF iceberg by attack

'I am being attacked by the iceberg.'

Some verbs are automatically in the passive voice, do not take the passive prefix, and cannot be used as an active verb.

e.g.

naunılm wlanasi ∫ylθım

naonil-mwlana-si $\int yl\theta$ -mwhale-DU.NOM1.SG.ADP.PRON-by.POSTfollow.PASS-3.du.futwhale-sme-by.POSTfollow-

'The whales will be followed by me  $\rightarrow$  I will follow the whales'

## 8.3 Negation

Negation can be expressed in two ways. For sentences containing a verb, the clitic  $/s\Lambda$ -/ is attached to the beginning of the verb phrase. e.g

lamasaı fiei $et^h$ 

lamas -ar fiei - $\varepsilon t^h$ hagfish -SG.ACC smell -1.SG.PRS hagfish smell

'I have smelled the hagfish.'

```
-\varepsilon t^h
lamas
         -ar
                            ĥеі
                    S\Lambda-
hagfish
                           smell -1.SG.PRS
         -SG.ACC
                    NEG-
                            smell
hagfish
                    not
'I have not smelled the hagfish.'
    For sentences without a verb, 3\varepsilon (no) is added to the end of the sentence. e.g.
wlat^h fief:
wlat^h
                   [sef:
1.SG.NOM.PRON fish
'I am a fish.'
wlAt^h S:eS: ZE
wlat^h
                   ſæſĸ
1.SG.NOM.PRON fish
                   fish
                          no
'I am not a fish.'
    This gives us two different ways to negate time sentences (Section ??):
anzizim xenia ania ze
          zizim
aŋ-
                        -Ø
                                   x \varepsilon n
                                           -iı
                                                     a\eta
                                                            -i.i
                                                                       3\varepsilon
          falling tide -NOM.SG hour -ACC.DU
two-
                                                     two
                                                           -ACC.DU
                                                                      no
second- rising tide
                                   hour -s
                                                     two
                                                                       no
'It is not 7:00 pm'
anzizım xeniл aniл saınsa
          zizim
aŋ-
                                   x \varepsilon n
                                                                            ins
                                           -i.ī
                                                            -i.ī
                                                     a\eta
                                                                                   -a
          falling tide -NOM.SG hour -ACC.DU
                                                                            have -3.SG.PRS
two-
                                                     two
                                                           -ACC.DU
                                                                      not
second- rising tide
                                   hour -s
                                                     two
                                                                           have
'It is not 7:00 pm'
        Possession
8.4
```

Possession is shown using the verb  $ins\ (have)$ . ins operates like any other transitive verb, taking a subject and direct object. Both alienable and inalienable possessions are treated the same way.

```
unilzii nezi inset^h
                                                 -\varepsilon t^h
υnılzi
                                          ms
                         рез
                        four
whale-bone -PL.ACC
                              -PL.ACC
                                          have -1.SG.PRES
whale-bone
                         four
                                          have
'I have four whale-bones.'
amaı ŋeʒı msɛm
                                            -\varepsilon t^h
ama
                                     ins
         -.T
                    ŋе3
                         -PL.ACC have -1.SG.PRES
parent -PL.ACC four
                    four
                                     have
'I have four parents.'
saımsi lamasaı inset^h
                                          -\varepsilon t^h
saip^h
                     lлтая
          -si
                              -aı ıns
tail-fin -in.POST hagfish
                                   have -1.SG.PRS
tail-fin in
                    hagfihs
                                   have
'I have a hagfish in my tail-fin.'
```

lamasaı safiei $et^h$ 

e.g.

Time sentences are formed as possessive sentences (see Section ??).

#### 8.5 Location

Location is marked by a number of postpositions, which take the adpositive case. The most common are  $s \infty$ (in), sei (into), mei (at), min (near), li (through; preposition, not postposition), and ili (below).

ſylθ

-ım

```
wuldsæ umriet^h
                              -\varepsilon t^h
wvl\theta
                       υmri
water-mass -in.Post swim -1.sg.prs
water-mass in
                       swim
'I swim in the water-mass.'
naunilm wulθsei wlanasi ſylθım
naʊnɪl -m
                   wis1\theta
                                            wlana
                                -sei
                                                              -si
whale
       -DU.NOM water-mass -into.POST
                                           1.SG.ADP.PRON -by.POST follow -3.du.fut
whale
                                                             -by.POST follow
                   water-mass into
'I will follow the whales into the water-mass'
enfiamiei zaar usiem
e\eta hap^h
                      zaaı us:
            -mei
                                              -εm
shipwreck -at.Post hear
                            3.SG.ACC.PRON -1.SG.PST
shipwreck at
                      it
                            hear
'I heard it at the shipwreck.'
wulθmaa umriem
w \sigma l \theta
           -тла
                        υmri
                               -εm
shipwreck -near.post swim -1.sg.pst
shipwreck near
                        swim
'I swam near the shipwreck.'
simualı umriem
sim v
         - тlт
                       υmri
                              -єт
iceberg -below.post swim
                             -1.SG.PST
iceberg below
                       swim
'I swam below the iceberg.'
lı wold omriem
                wvl\theta
                             υmːi
                                   -εm
through.PREP water-mass
                            swim -1.SG.PST
through
               water-mass swim
```

Some words are irregular and do not take the adpositive with location words. Two notable examples are 3Em (the part of the ocean reachable by light) and safi (the dark depths of the ocean), which are derived from mermish mythology (mermythology), and are irregular in adpositive and accusative cases and are always inalienable possessors.

```
li zem i:aefiwi um:i:wi
                                                                                                                                                                                                                                           izaef
                                                                                                                                                                                                                                                                                                                    -iwi
                                                                                                                                                                                                                                                                                                                                                                                                                     υmːi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -iwi
                                                                                                                         light-ocean quickly -1.SG.FUT swim -1.SG.FUT
  through.PREP
  through
                                                                                                                                 light-ocean quickly
                                                                                                                                                                                                                                                                                                                                                                                                                   swim
'I will swim quickly through the light-ocean.'
  safisi məmamiwi
  safi
                                                                                                            -si
                                                                                                                                                                                               m 
ightharpoonup m 
i
                                                                                                                                                                                                                                                                                    -iwi
  deep-ocean -in.POST
                                                                                                                                                                                          sleep
                                                                                                                                                                                                                                                                                    -1.SG.FUT
  deep-ocean in
                                                                                                                                                                                             sleep
```

'I swam through the water-mass.'

'I will sleep in the deep-ocean.'

## 8.6 Time

## 8.6.1 Time as a Possession Sentence

Time sentences take the form of a "has" sentence. A time sentence starts with which tide it is in the nominative, followed by the number of hours (or hour, singular) into the tide in the accusative, then the singular third-person form of the verb to have. The hours can be modified by and half to indicate that it is near the middle of the hour, as it's hard to keep track of exact minutes underwater. It is also valid to use the present third-person verb begins or ends rather than the hours + to have if a new tide has just begun or will begin soon respectively. The to have or one (when only one hour has passed since a new tide) are sometimes elided.

```
1. sazım enga
```

falling tide begin -s 'It is just past 11 am'

## 2. zizīm suīla

zizim - $\varnothing$  sul -a rising -NOM.SG end -3.SG.PRS rising tide end -s

'It is almost 11 am'

### 3. aŋsaʒım хепл резл ınsa

 $x \varepsilon t^h$  $ak^h$ sazım ins-a ŋez -3.sg.prs twofalling tide -NOM.SG hour -ACC.PL four have -ACC.PL second- falling tide hour -s four has 'It is 3 am'

### 4. anzizim xena anfiemuna insa

 $ak^h$  $x \varepsilon t^h$ zi3m-fie -mʊn ins $a\eta$ -a twofalling tide -NOM.SG hour -ACC.PL two -and -half -ACC.PL have -3.sg.prs half second- rising tide hour two and has 'It is 7:30 pm'

### 5. anzizim xeni anhemuni

 $ak^h$  $x \varepsilon t^h$ zi3m-fie -mʊn -.T aŋ twofalling tide -NOM.SG hour -ACC.PL -half two -and -ACC.PL second- rising tide hour and half 'It is 7:30 pm'

## 6. sazım xengi hvar insa

 $x \varepsilon t^h$  $sa_3im$ -Ø ĥυ -a.i -a.i ins -a hour -ACC.SG -3.SG.PRS falling tide -NOM.SG one -ACC.SG have falling tide hour has one 'It is noon'

### 7. sazım xengi insa

### 8. sazım xenal

 $sa_{33}m$  - $\varnothing$   $x\varepsilon t^h$  - $a_{33}m$  falling tide -NOM.SG hour -ACC.SG falling tide hour 'It is noon'

9. zizim xenia ania insa  $x \varepsilon t^h$ zizim-Ø -iı insfalling tide hour -ACC.DU -3.sg.prs -NOM.SG two  $\text{-}\mathrm{ACC.DU}$ have rising tide hour two has

'It is 7:00 am'

Comparison of examples 4 & 5 and 6, 7, & 8 demonstrate omission of to have and one. This language does not mark definiteness or gender, but does mark case and number (singular, dual, plural).

#### 8.6.2 Time as a Noun Phrase

Time can also be expressed through nominal possession in a postpositional phrase. To use a time in a noun phrase, the appropriate tide is the possessor and the number of hours is the possessed (if any hours). e.g.

aŋsaʒıma ŋeʒxɛnasuıs

 $ak^h$ sazım nezfalling tide -ADP.SG three.ORD hour -during.POST two--ADP.SG second- falling tide thirdhour during 'at 3 am'

ansazımasuıs

akh--les sazım falling tide -ADP.SG -before.POST twobefore second- falling tide 'before 11 pm'

#### 8.7 Comparison

#### 8.7.1 Comparatives

Comparison is done by suffixing if to the comparative and the standard, then adding the case ending that agrees in number and case to the comparee NP. Pronoun standards agree with the comparee before suffixing the comparison morpheme. Adjectives modifying the standard also take the suffix, and the listener understands through context and word order which adjective is modifying the standard and which is the comparative.

e.q.

 $wlat^h$  izaefif zemif

 $wlat^h$ -ıf izaef -īf  $z \varepsilon m$ -COMP 1.SG.NOM.PRON quick 2.SG.NOM.PRON -COMP quicker than vou

'I am quicker than you.'

wlath isaefif fiefiif flimsif

 $wlat^h$ izaef -ıf [zefz 1.SG.NOM.PRON -COMP fish -COMP quick -COMP red quicker than fish red

'I am quicker than the red fish.'

 $[e]:a_1 \lim_{h\to 0} [e]:a_1 \lim_{h\to 0} [h]$ 

 $-\varepsilon t^h$ ſœſz -aı flms-īf ſæſ -ıf -ıf -aı -aı sim-aı insfish -sg.acc red -COMP -SG.ACC fish -SG.ACC that -1.SG.PRS -COMP -COMP -SG.ACC have fish redder than fish that have

'I have a fish that is redder than that fish.'

[e]:aı [e]:aı [e]:faı nemifaı inset<sup>h</sup>

- $\varepsilon t^h$ ses -aı  $\int lms$ ſæſĸ -ıf -ıf -ıf -aı -aı  $n\varepsilon m$ -aı insfish -sg.acc red -COMP -SG.ACC fish -COMP -SG.ACC all -COMP -SG.ACC have -1.SG.PRS fish redder than fish have all

<sup>&#</sup>x27;I have a fish that is redder than all fish  $\rightarrow$  I have the reddest fish'

This last example can also be constructed using superlatives (??)

Comparative adjectives can be used as adverbs (??).

```
f:ef: i:aeffa naomilifa om:ia
f:ef: i:aef -rf -a naomil -rf -a om:i -a
fish quick -COMP -3.SG.PRS whale -COMP -3.SG.PRS swim -3.SG.PRS
fish quick -er whale swim
'The fish swims more quickly than a whale.'
```

### 8.7.2 Superlatives

Superlatives are formed by suffixing ifnem to an adjective stem. Superlatives agree with the NPs they modify in number and case.

```
e.g.
wlat<sup>h</sup> izaefifnem
wlat^h
                  izaef
                         -ıfnεm
1.SG.NOM.PRON quick -SUPL
                  quick -est
'I am the quickest.'
ſːeʃː ʃːeʃː -ɪfnɛm iːaef
                           -ıfnεm
fish fish -SUPL
                    quick -SUPL
fish fish
                    quick -est
'The fish is the quickest fish.'
\mathbf{f}ef:ifnemaı flimsifnemaı inset<sup>h</sup>
                                                           -\varepsilon t^h
ses -ifnem -ai
                        \int lims
                                  -ıfnɛm -aı
fish
     -SUPL
             -sg.acc red
                                  -SUPL -SG.ACC have -1.SG.PRES
fish
                        reddest
                                                     have
'I have the reddest fish.'
```

Compare this last example to the equivalent construction using comparatives (??).

Superlative adjectives can be used as adverbs (??).

```
j:ej: i:aefifnema um:ia

j:ej: i:aef -ifnem -a um:i -a

fish quick -SUPLP -3.SG.PRS swim -3.SG.PRS
fish quick -est swim

'The fish swims the quickest.'
```

# 8.8 Questions (And Maybe Some Answers)

## 8.8.1 Yes-No Questions

Yes—no questions involving the zero copula indicated by the first word of the sentence—either so if the speaker is indicating an expected 'yes' answer, 5\varepsilon to indicate an expected 'no' answer, or soz\varepsilon if no expectation.

```
sa films fief:
sa wlath fief:
yes red fish
yes red fish
'The fish is red, isn't it'
```

e.g.

```
3\varepsilon flms fief:

3\varepsilon wlat<sup>h</sup> fief:

no 1.SG.NOM.PRON fish

no I fish

'The fish isn't red, is it?'

saz\varepsilon flms fief:

saz\varepsilon wlat<sup>h</sup> fief:

yes-no red fish

'Is the fish red?'
```

Other yes—no questions are formed by moving the verb phrase to the beginning of the sentence (while maintaining all other word order).

e.g.

swim

```
sfa wlana vm:i:niwat^h
                    wlana
                                                          -wat^h
sf_{\Lambda}
                                  υmːi
                                          -ini
                                  swim -2.SG.FUT -IMPF
with.com.pre 1.sg.adp
with
                    me
                                  swim
'You will be swimming with me.'
\mathbf{vm}\mathbf{x}\mathbf{x}\mathbf{n}\mathbf{w}\mathbf{a}\mathbf{t}^{h} sfa wlana
                       -wat^h
υmri
        -ini
                                 sf_{\Lambda}
                                                      wlana
swim -2.SG.FUT -IMPF with.COM.PRE 1.SG.ADP
```

'Will you be swimming with me?'

```
izaefema umziema sfa wlana
```

```
i:aef -ema vm:i -ema sfA wlana
quickly -2.SG.FUT swim -2.SG.FUT -IMPF with.COM.PRE 1.SG.ADP
quickly swim with me
```

me

'Did you swim quickly with me?'

```
!amsawat^h lamas naunilai
```

```
!ams -a -wath lamas naunil -ax eat -3.SG.PRS -IMPF hagfish whale -SG.ACC hagfish whale
```

'Did the hagfish eat the whale?'

Special emphasis can be placed on certain words in a question by suffixing  $/-\theta e/$  to the word in question. For example:

```
!i:aefawane\thetae amsawat<sup>h</sup> lamas naunilar
```

```
i:aef -a -wath -\thetae !ams -a -wath lamas naund -ax quickly -E.SG.PRS -IMPF -textscq eat -3.SG.PRS -IMPF hagfish whale -SG.ACC quickly eat hagfish whale
```

'Did the hagfish eat the whale quickly?'

Answers to yes/no questions are either just a sa or  $3\varepsilon$  or else should have the answer (sa/ $3\varepsilon$ ) at the end of the sentence, regardless of the form of the response.

```
e.g.
```

```
films fief: so sa wlat^h fief: red fish yes red fish yes 'Yes, the fish is red.'
```

```
flims fief: 38
     wlat^h
            ſzeſz
red fish
             no
red fish
             no
'No, the fish is not red.'
lamas naunilai!amsawat^h sa
         navnil -ai
lлтая
                            !ams -a
                                                      sa
hagfish whale
                 -SG.ACC
                                  -3.sg.prs -impf
                           eat
                                                      yes
hagfish whale
                           eat
                                                      yes
'Yes, the hagfish did eat the whale.'
         Wh- Questions
8.8.2
"Wh-" questions ask for an answer that fills a specific part of the sentence. These questions are formed using the
3rd person pronoun with the appropriate number (as judged by the questioner) + /-\theta e/ in place of the word
being questioned, maintaining normal sentence word order. For unknown quantities (how many?), the default
number 12 (at^h) + /-\theta e/ is used instead of the 3rd person pronoun.
    e.q.
zaθe lamasaı!amsawat^h
                                                             -wat^h
                  -\theta e
                      lлтаs
                                           !ams
                                                 -3.SG.PRS
3.SG.NOM.PRON -Q
                      hagfish
                                                             -IMPF
                               -SG.ACC
                                          eat
who
                       hagfish
                                           eat
                                                             -ing
'Who is eating the hagfish?'
lamas zaar\thetae !amsawat<sup>h</sup>
                                                   -wat^h
lлтая
         zaar
                               !ams
                           -\theta e
hagfish 3.SG.ACC.PRON -Q
                                eat
                                      -3.SG.PRS
                                                  -IMPF
hagfish who
                                                  -ing
                                eat
'Who(m) is the hagfish eating?'
lamas zaar\thetae !amsawat<sup>h</sup>
                                                   -wat^h
lлтая
         3aar
                           -\theta e
                               !ams
hagfish 3.SG.ACC.PRON -Q
                                eat
                                      -3.sg.prs
                                                  -IMPF
hagfish who
                                eat
                                                  -ing
'Who(m) is the hagfish eating?'
naunılaı 3aaθesi εmımlini
navnıl -aı
                                    -\theta e
                                                        εmıml -ini
                                         -si
whale -SG.ACC 3.SG.ADP.PRON -Q
                                         -INSTR.POST
                                                        attack -2.SG.FUT
whale
                  what
                                         using
                                                        attack
'What will you use to attack the whale?'
3aθe amait<sup>h</sup> wlat<sup>h</sup>
                                -it^h
                  -\theta e
                       ama
3a
                                           zein
3.SG.NOM.PRON -Q
                       parent
                               -SG.POSS
                                          2.sg.nom.pron
who
                       parent
                                           you
'Whose parent are you?'
zaaθesus υm:i:ni
zaa
                  -\theta e
                      -sws
                                      υmri
                                            -2.sg.fut
3.SG.ADP.PRON -Q
                      -during.POST
                                      swim
```

when

during

'When are you going to swim?'

swim

## wlanaı зааветші єтітlєта

wlana. 3aa  $-\theta e$  -mu.. emml -ema 1.SG.ACC.PRON 2.SG.ADP.PRON -Q -because-of.POST attack -2.SG.FUT me why because-of attack

'Why did you attack me?'

Answers to Wh-questions are not always complete sentences or phrases, but should agree with the  $/\theta e/$ -word they answer.

e.g.

## $\mathbf{Q}$ : nu zau $\theta$ e umzirla

nv gaa - $\theta e$  vm:i - $\imath la$  to.PREP 3.SG.ADP.PRON -Q swim -1.DU.INCL.FUT to what swim

'Where will we swim to?'

### A1: nu simua um:iila

nv simv -a vm:i -ıla to.prep iceberg -SG.ADP swim -1.DU.INCL.FUT to iceberg swim

'We will swim to the iceberg.'

### A2: nv simva

nv simv -a to.prep iceberg -SG.ADP to iceberg 'To the iceberg.'

## **Α3:** simυα

simv -a iceberg -SG.ADP iceberg

'(To) the iceberg.'

# Communication

# 9.1 Greetings

The most informal greeting, used between people who know each other, is euz. Using this greeting with someone unfamiliar would typically lead to a "you talkin' to me???" reaction, but isn't inherently offensive. This is spoken with a lilting, song-like prosody inspired by whale-calls.

Friendly/informal greetings between strangers are sentences that involve a pleasantry or introduction. The informal greeting euz can be used after a quick introduction.

```
e.g.
```

```
nimv wlat<sup>h</sup> euz
nimv wlat^h
                          eu3
nimU 1.SG.NOM.PRON hello
nimU I
                         hello
'Hello! I'm Nemo.'
sazım aılu
sazım
             aılv
falling-tide warm
falling-tide warm
'Good afternoon.'
zizım aılu
zizim
            aлlv
rising-tide warm
rising-tide warm
'Good morning.'
```

Greetings in passing (not stopping for a conversation) are typically conveyed through body language (a wave of the hand or a quick tail- or fin-flap), but can be vocalized with an alveolar click ( $\parallel$ ).

Formal greeting are used when talking to individuals of note/rank. This includes pod/family leaders, praiseworthy individuals, or subjects of intense flattery. These greetings are well-known, and shortening or changing of these greetings through omission or substitution of words are used mockingly.

```
e.g. the serious ones
```

```
zemaı fiaieth mith nəumlaı fiaieth mith naumlaı fiaieth mith nauml -aı fiai -eth nauml -aı fiai -eth 2.SG.ACC.PRON see -1.SG.PRS and-so.CONJ whale -1.SG.ACC see -1.SG.PRS you see and-so whale seen you and-so I have seen a whale.'
```

e.g. the not-serious ones

```
zema<br/>ı\operatorname{mit}^hnavnılar
```

zemaı mı $t^h$  navnıl -aı

2.SG.ACC.PRON and-so.CONJ whale -1.SG.ACC

you and-so whale

'I have seen you and-so I have seen a whale hahahahahahah.'

 $e.g.\ the\ not\text{-}serious\ ones$ 

zemaı fiaset $^h$  mit $^h$  lamasaı fiaset $^h$ 

zemaı fiai - $\varepsilon t^h$  mı $t^h$  lamas -aı fiai - $\varepsilon t^h$  2.SG.ACC.PRON see -1.SG.PRS and-so.CONJ hagfish -1.SG.ACC see - $\dot{\epsilon}$ .sg.prs you see and-so hagfish see

'I have seen you and-so I have seen a hagfish (rude!!!).'

# 9.2 Partings

The most informal parting, used between people with basic familiarity with one another, is a:wɛ. Using this parting with someone unfamiliar would typically lead to a "you talkin' to me???" reaction, but isn't inherently offensive. This is spoken with a rising, song-like prosody inspired by whale-calls.

The somewhat less informal parting is used to impart well-wishes on the departee. It is sometimes shortened, since it is a familiar phrase.

e.g.

meli safi umzizni

 $m\varepsilon$ - -li safi vm:i -ini IMP- INE deep-ocean swim -2.SG.FUT in deep ocean swim

'Be safe/bye!'

melisafi

mε- -lı -safi

IMP- INE deep-ocean

in deep

'Be safe/bye!'

Partings in passing (not stopping for a conversation) are typically conveyed through body language (a wave of the arm or a quick tail- or fin-flap), but can be vocalized with an alveolar click ( $\parallel$ ) similarly to greetings.

Formal parting are not typical because if someone's really that important they'll just tell you that you're leaving now (rude) or just swan off. A slightly mocking parting (someone you're not a fan of is swimming off) would be a variant of the formal greeting but modified to reflect that the person is departing.

e.g.

zemaz fiazema  $\operatorname{mit}^h$  məmamema

zemaı  $f_{\Lambda J}$  -ema  $mit^h$   $m \ni map^h$  -e $t^h$  2.SG.ACC.PRON see -1.SG.PST and-so.CONJ sleep -1.SG.PST you see and-so sleep

'I saw you and-so I slept (zzzz).'

zeınaı fiл<br/>ıema mıt $^h$  safiлıet $^h$ 

zemaı fiai -ema mıth sa- fiai -eth 2.SG.ACC.PRON see -1.SG.PST and-so.CONJ -NEG see -1.SG.PRES you see and-so not see

'I saw you and-so I don't see.'

# 9.3 Compliments and Insults

## 9.3.1 Compliments

General compliments (not about a particular characteristic) typically either draw from the mermish fascination with whales or highlight a person's place/importance to the pod.

```
e.g.
```

```
zem naunilifnemit^h naxiifnemit^h ne\int zem naunil -ifnem -it^h naxi -ifnem -it^h ne\int 2.SG.NOM.PRON whale -SUPL -SG.POSS huge -SUPL -SG.POSS 1.INCL.PL.NOM.PRON you whale huge -est us 'You are our hugest whale. (Wow!! Very nice)'
```

zem naxjifnem

zem naxı -ıfnem 2.SG.NOM.PRON huge -SUPL you huge -est

'You are the hugest. (Pretty darn nice)'

zem naxı

zem naxı 2.SG.NOM.PRON huge you huge

'You are huge. (Slightly lukewarm, possibly damning with faint praise)'

nem zema zasafıt $^h$ si Um:iaIT

nem zema zasaf  $-it^h$  -si vm:i  $-ai\theta$  all 2.sg.Adp.Pron shadow -sg.Poss -in.Post swim -1.excl.pl.prs all vou vour-shadow in swim

'We all swim in your shadow  $\rightarrow$  Your presence makes us safe  $\rightarrow$  You're generally very useful to the pod.'

### **9.3.2** Insults

General insults (not about a particular characteristic) typically either draw from the mermish fascination with whales or diminish a person's place/importance to the pod. Comparisons to debris from human existence are also considered particularly insulting because the merms do not appreciate the sloppy presence of humans in the oceans.

e.g.

zem navnilisnemit $^h$  naxiisnemit $^h$  nes

zem naunil -ifnem -ith naxi -ifnem -ith ne $\int$  2.SG.NOM.PRON whale -SUPL -SG.POSS huge -SUPL -SG.POSS 1.INCL.PL.NOM.PRON you whale huge -est us

'You are a dolphin  $\rightarrow$  You are small and fake whale  $\rightarrow$  You're fake and useless'

zem naxmenezifnem

'You are the tiniest.'

zem naxmenez

zem nax.mene3
2.SG.NOM.PRON huge -NEG
you huge opp

'You are tiny.'

```
z \in m eyek^h z \in m eyek^h 2.SG.NOM.PRON debris you debris
```

'You are trash/human debris.'

# 9.4 Speech Acts

### 9.4.1 Commands

Commands are formed by using the clitic  $m\varepsilon$  at the beginning of the sentence with the future tense verb. e.g.

sfa wlana v:mi:ni
sfa wlana v:mi -ini
with.ACC 1.SG.ADP.PRON swim -2.SG.FUT
with me you swim
'You will swim with me.'
mesfa wlana v:mi:ni

 $m\varepsilon$ -  $sf_A$  wlana v:mi -ini IMP- with.ACC 1.SG.ADP.PRON swim -2.SG.FUT with me you swim

'Swim with me.'

mε∫æ∫æı ĥamini

 $m\varepsilon$ - f:ef:  $-\alpha I$  fiam -iniIMP- fish -ACC.SG swallow-whole -2.SG.FUT fish swallow-whole

'Swallow-whole the fish.'

 $m\epsilon\epsilon\eta i\theta l$ 

 $m\varepsilon$ -  $e\eta$  - $i\theta l$ IMP- begin -2.PL.FUT
begin

'(Y'all) begin.'

## 9.4.2 Requests

Requests are formed by moving the verb phrase to the beginning of the sentence (as one would a question) and using the imperative clitic  $m\varepsilon$  (as with a command).

e.g.

sfa zema σιπίινί

 $sf_{\Lambda}$   $z\varepsilon ma$  v:mi -iwi with.PREP 2.SG.ADP.PRON swim -1.SG.FUT with vou swim

'I will swim with you. statement'

υτπίτωι sfa zema

v:mi -iwi sfa zema

swim -1.sg.fut with.prep 2.sg.adp.pron

swim with you? question'

mesfa zema vimiiwi

 $m\varepsilon$ -  $sf_{\Lambda}$   $z\varepsilon ma$  v:mi -iwi IMP- with.PREP 2.SG.ADP.PRON swim -1.SG.FUT with you swim

'Let me swim with you. command'

mευ:mi:wi sfa zema

 $m\varepsilon$ - v:mi -iwi sf $\Lambda$  z $\varepsilon$ ima

IMP- swim -1.SG.FUT with.PREP 2.SG.ADP.PRON swim with you

'Can I swim with you? request'

### 9.4.3 Promises

Promises are made by using the first person future tense verb form and the postpositional phrase safiyze, meaning for the sake of safi (the deep-ocean spirit of mythology, or just the deep-ocean itself).

e.q.

safiyıe ∫:e∫:aıεmımliwi

'I promise to eat the fish (I will eat the fish for the sake of safi)'

Promises can also be requested or commanded:

mesafiyie (iefiaiemimlini

 $m\varepsilon$ -safi-y.jef.ef.:-a.j $\varepsilon mml$ -iniIMP-deep-ocean-for-the-sake-of.POSTfish-SG.ACCeat-2.SG.FUTdeep-ocean-for-the-sake-offish-eat

'Promise you will eat the fish.'

mE:mImlini safiyae fæfaa

mε- εmiml -ini safi -y.ie f:ef: -α.i

IMP- deep-ocean eat -2.SG.FUT -for-the-sake-of.POST fish -SG.ACC deep-ocean -for-the-sake-of fish eat

'Do you promise to eat the fish?'

### 9.4.4 Boasting

The ocean is the ultimate authority, so boasts are often made comparing to the ocean spirits or the movement of the ocean.

e.g.

zımsafie nemfie i:aefiflit $^h$ wlanıflit $^h$ sa<br/>om:ilit $^h$ 

zımsa -he nem -he izaef -ue -ue -he izaef -ue -ue -he izaef -ue -

0111.11

-3.PL.SG.PRES swim

'All the currents don't swim faster than me.'

# Sample Narrative

# 10.1 English Text

Marlin and Dory are travelling to Sydney. Dory asks a dark and mysterious fish for directions. Marlin reprimands her while she shouts to the fish.

The fish grows and they see that the fish is.... a whale! Dory sings to the whale.

"Give us directions!!!"

The whale disappears and Marlin is frightened. Dory tells him that whales eat krill, not Marlins.

Suddenly, they see a lot of krill near them.

(...pause for suspense...)

The whale swallows them whole! Marlin frantically attacks the whale's baleen. Suddenly they see that the surface of the water of the whale's mouth is approaching...

The whale flaps its tongue. They hold onto the tongue while Dory begs Marlin trust her and let go. Marlin scolds Dory and sees a huge 32m below him.

(...pause again for suspense...)

He lets go.

The whale swallows them quickly and blows them out into Sydney.

### 10.2 Mermish Text

maılın  $\Lambda$  nuzi nu sin:ia mıŋɛnlıt $^h$ . nuzi laidı  $\mathfrak{f}$ :e $\mathfrak{f}$ :a sama  $\Lambda$  ʒɛndniı mea. maılın ʒadı xœxia suril  $\mathfrak{f}$ :e $\mathfrak{f}$ :aniı sazi:na.  $\mathfrak{f}$ :e $\mathfrak{f}$ : nexmla mıt $^h$  ap $^h$ ...  $\mathfrak{f}$ :e $\mathfrak{f}$ :aı naunıldı fi $\Lambda$ ılıt $^h$ . nuzi naunıldı nauma.

'mɛslani!niɹ laiqɹ alzini'

naunil uaamin:<br/>a $\mathrm{mit}^h$ mailin unanak $^h$ . nuzi zaur amy<br/>ia ap $^h$ naunili nemi $\mathrm{fifii}$ slixi !<br/>amsıml mlut $^h$ mailinui sa!amsıml.

zadsus zenzimia fifii ailai fivilit $^h$ .

(...meanany a Amzini...)

naunil zen:iz fiama. mazlin naunilz filminit $^h$  m $\mathfrak{z}$ amia emimla. zaasus fiaza ap $^h$  naunilaz eŋlima $\mathfrak{y}$ it $^h$  w $\mathfrak{z}$ uuit $^h$  min:a...

naunil zadı ilaldıt $^h$  lega. <br/> ilaldı gumlit $^h$  suril nuzi maılındı sa $\theta$ a ap $^h$  zad<br/>sm zium:<br/>ia mıt $^h$  sagıim:<br/>a.

maılın nuziqi xexia mlat $^h$  3<math>em naxiq 3aqılı fixia.

(...meananyie anamzini...)

рліта.

naunil zenziz izaefa fiama  $mlat^h$  sinziasei nauzia.

## 10.3 Glosses

1. maılın  $\Lambda$  nuzi nu sin; ia mınenlıt<sup>h</sup>

```
maxlm\Lambdanv.iinvsin:i-ammpen-ltt^hMarlinand.CONJDoryto.PREPSydney-SG.ADPtravel-3.DU.PRSMarlinandDorytoSydneytravel
```

'Marlin and Dory are travelling to Sydney.'

2. nui laiai ſieſia sama λ zenanii mea пилі lai -aı -nia sam $3\varepsilon n$ Dory direction -SG.ACC fish -SG.ADP dark -SG.ADP and.CONJ mysterious -SG.ADP -DO.POST Dory direction fish dark mysterious and  $m\varepsilon$ -a request -3.sg.prs request 'Dory asks a dark and mysterious fish for directions.' 3. mailin zagi xœxia suil [ieʃignii saiina maılın zaaı xœxi swil[sef: saxixn-a -nix -a Marlin 3.SG.ACC.PRON reprimand -3.SG.PRES while.CONJ fish -SG.ADP -DO.POST shout reprimand -s while fish to shout -a -3.SG.PRES -S 'Marlin reprimands her while she shouts to the fish.' 4.  $f:ef: nexmla mit^h ap^h f:ef:ai naunilai fialit^h$ fiefi nexml  $mit^h$  $ap^h$ ſĸeſĸ  $f_{\Lambda J}$  -lith -a navnıl -aı fish grow -3.sg.pres and.conj is? fish -SG.ACC whale -SG.ACC see -3.DU.PRES that fish whale fish grow -S and see 'The fish grows and they see that the fish is a whale.' 5. nuzi naunilaniz nauma nvai navnıl -a -nia navm -aDory whale -SG.ADP -DO.POST sing -3.sg.prs Dory whale sing to -S 'Dory sings to the whale.' 6. meslani!niı laigi alzini mε- slani! -ini -nia lai alz-aı give -2.sg.fut IMP- 1.EXCL.DU.ADP.PRON -DO.POST direction -SG.ACC 118 direction give to 'Give us directions.' 7. naunil usamin'a mit<sup>h</sup>mailin quanak<sup>h</sup> navnil vsamınz  $mit^h$  $maxlın ananak^h$ -a whale NEG- appear -3.SG.PRES and.CONJ Marlin frightened whale disappear -s and Marlin frightened 'The whale disappears and Marlin is frightened.' 8. nozi zada amya ap<sup>h</sup> naonila nema fifia slixa !amsıml mlat<sup>h</sup> maalında sa!amsıml  $ap^h$ navnil -1 пилі заал amyı -a ſιſι slixDory 3.SG.ACC.PRON tells -3.sg.pres is whale -PL.ACC all -PL.ACC krill -PL.ACC some Dory him tell -S that whale -S all krill some  $mlat^h$ maılın -aı sa-!ams !ams -ıml -ıml eat -3.PL.FUT -PL.ACC eat -3.PL.FUT and.CONJ Marlin NEGand Marlin not eat eat 'Dory tells him that whales eat krill, not Marlins.' 9. 3asus 3en:imia 1111 ailai hailit<sup>h</sup>fiлл  $-lit^h$ aila -sws ʒεnːi -тла ſιſι 3.DU.ADP -near.POST krill -PL.ACC -PL.ACC -3.DU.PRES 3.SG.NOM.PRON -at.POST many see them at near krill many see 'Suddenly they see a lot of krill near them.'

### 10. тепалуле лигіпі

 $m\varepsilon$ anan -yae -ini  $\Lambda mz$ -for-the-sake-of.POST pause -2.SG.FUT IMP- fear fear for pause

'Pause for suspense.'

### 11. naunil zenziz fiama

navnil zenziz ham

whale 3.DU.ACC.PRON swallow-whole -3.SG.PRES

whale them swallow-whole -s

'The whale swallows them whole.'

## 12. maılın naunılı filminit<sup>h</sup> mıfamıa emimla

maılın navnıl -ı fīlmin mısami εmiml -a

Marlin whale -SG.ACC baleen -SG.POSS frantic -3.SG.PRES attack -3.SG.PRES

Marlin whale baleen frantic -ally attack -s

'Marlin frantically attacks the whale's baleen.'

## 13. zasus fiara ap $^h$ naunilar enlimanit $^h$ wrunt $^h$ minra

-sws hлл -a $ap^h$ navnıl -aı  $e\eta lmak^h$  $-it^h$ w.iui 3.SG.NOM. -at.POST -3.sg.pres IS? see whale -SG.ACC mouth water-surface -SG.POSS that whale see mouth water-surface at $-it^h$ min: -SG.POSS approach -3.SG.PRES

approach -ing

'Suddenly they see that the surface of the water of the whale's mouth is approaching.'

## 14. navnil zada ilalait $^h$ lena

navnil zaai ılala  $-it^h$  $lek^h$ 

whale 3.SG.ACC.PRON tongue -SG.POSS flap -3.sg.pres

whale it tongue flap -s

'The whale flaps its tongue.'

## 15. ılalar nımlıt<sup>h</sup> suil nuri marlınar sa $\theta$ a ap<sup>h</sup> zaasm rium:ia mıt<sup>h</sup> sanrim:a

 $-lit^h$  $ap^h$ ılala пліт nvsi maslın -as swil  $sa\theta$ tongue -SG.ACC hold-onto -3.DU.PRES while Dory Marlin -SG.ACC beg -3.sg.pres while Dory Marlin tongue hold-onto beg to  $mit^h$ лівті -а zaa -sm -3.sg.pres and.CONJ NEG hold-onto -3.sg.pres 3.SG.ADP.PRON -ACCOM.POST rise with rise and not hold-onto

'They hold onto the tongue while Dory begs Marlin to trust her and let go.'

### 16. mazlın nuziaz xexia mlat $^h$ zem naxza zaazlı fiaza

maılın nv.ii  $mlat^h$ -aı xœxi -a -Ø  $3\varepsilon m$ naxı -a Marlin Dory -SG.ACC scold -3.SG.PRES and.CONJ light-ocean -SG.ADP huge -SG.ADP Marlin Dory scold -s huge and 3εm

zaa -ılı hлл -a

3.SG.ADP.PRON -below.POST see -3.SG.PRES

below see -S

'Marlin scolds Dory and sees a huge 32m below him.'

### 17. теапаруле арлтгіпі

anan -yae  $m\varepsilon$ aη- $\Lambda mz$ -ini

IMP- fear -for-the-sake-of.POST two--2.SG.FUTpause

fear for again pause

'Pause again for suspense.'

18. ѕлулта

```
SA- ŋ.m: -a
NEG- hold-onto -3.SG.PRES
not hold-onto -s
```

'He lets go.'

19. naunil zenzi<br/>ı izaefa fiama mlat $^h$  sinziasei nauzia

```
mlat^h
                         izaef
                                                                                   sinxi
navnıl zenziz
                                -a
                                                                                            -sei
whale
                        quick -3.SG.PRES
                                            swallow-whole -3.SG.PRES
                                                                        and.CONJ
                                                                                   Sydney
       3.DU.ACC.PRON
                                                                                            -into.post
whale
                         quick -ly
                                            swallow-whole -s
                                                                        and
                                                                                   Sydney
       them
navzi
        -a
exhale
       -3.SG.PRES
blow
       -s
```

## 10.4 Narrative Choices

- 1. The story is told in present tense because that's how stories are told.
- 2. **Text:** The mermish language has no written form, so punctuation and formatting is borrowed from English to emulate the spoken form of this story. Exclamation points were included in the English text but not in the Mermish text to avoid confusion with the IPA symbol.
- 3. The word *lai* means "direction" as in "advice or guidance", but is translated as "directions" as in "course or route" in English. The switch from singular in the Mermish to plural in English is not a mistake.
- 4. Sentence 9: zaasus literally translates to "at it (time)", meaning "at that time" or "immediately"
- 5. Sentence 12: The water surface falling happened in the movie but it's also a metaphor for danger!!
- 6. **Sentence 14:** The direct translation of "trust" is "swim up with", as swimming close to the surface is considered dangerous and thus one should only do so with someone trusted to be alert and able to defend themselves.
- 7. **Sentence 15:** The phrase "he sees a huge 3ɛm below him" is an idiom meaning that he saw that he was in a very dangerous situation (sort of like the idiom "the alarm bells started going off"). This comes again from the idea that the closer to surface of the ocean, the more dangerous. If someone is close to the surface of the ocean, when they look down they'll see more of 3ɛm, or the part of the ocean reachable by light, below them than if they were deeper down (though really there should have been way more clues..). Thus, looking down and seeing a ton of 3ɛm-water below you would tip you off that you're in a dangerous position. The idiom is also sometimes shortened to "sees a big of 3ɛm" (zɛm naxıa hʌıa) with the "below x" understood.

<sup>&#</sup>x27;The whale swallows them quickly and and blows them into Sydney.'

# Appendix A

# Lexicon

IPA	A Part of Speech	English Translation
awe	greeting	goodbye
amuni	verb	scratch/claw
$\mathrm{anak}^h$	noun	$\operatorname{fright}$
ananak	h adjective/adver	b frightened
Emiml	verb	attack
f	verb	see
бεni	noun	typhoon/ocean storm
ſίυ	noun	one
$\widehat{ ext{huts}}$	noun	twenty four
$\operatorname{fiam}$	verb	swallow whole
fiei	verb	$\operatorname{smell}$
fii	noun	nine
ms	verb	have
$\mathfrak{p}$ ap $^h$	noun	finger
num:	verb	hold
ŋeʒ	noun	four
0 0		
∫ı∫ı	noun	krill
∫∶e∫ː	noun	fish
∫ylθ	verb	follow (passive)
υmːi	verb	swim
υnılzi	noun	whale
USI	verb	hear
051	VCID	ii cui
3em	noun	light-ocean
<sub>3</sub> εni	adjective/adverb	mysterious
zimsa	noun	deep-sea current
3asaf	noun	shadow
литі	verb	rise (swim up)
лli	postposition	below (location)
$\operatorname{cemp}^h$	noun	six
!ams	verb	eat
Λ	conjunction	and (nominal conjunction)

	•	IPA	Part of S	Speech	English Translation
	Λmz		verb		pause/stop/rest
	aılu	ac	ljective/a	dverb	warm
	arŋ		noun		day
	aı		noun		week
	aŋsaʒım		noun		second falling tide (11:00 pm)
	aŋziʒɪm		noun		second rising tide (5:00 pm)
	$ak^h$		noun		two
	alz		verb		give
	amyıa		verb		tell/report
	anfieriə		noun		nineteen
	anfiersl		noun		twenty
	anfiefii		noun		twenty one
	anfieŋeʒ		noun		sixteen
	anfieu		noun		thirteen
	anfieæm	$p^h$	noun		eighteen
	anfiea		noun		fourteen
	anfiefuf		noun		twenty three
	anfieis		noun		twenty two
	anfiemut	$\frac{1}{2}h$	noun		seventeen
anfiesa	L	nou	ın	fifteen	
aninen	n	nou	ın	flesh/r	
$\operatorname{ap}_{l}^{h}$		parti	icle		o (used in indirect speech/experience)
$\mathrm{at}^h$		nou	ın	twelve	
eiŋ	<i>l</i> .	ver	b	begin	
enfap		nou	ın	shipwr	
eŋek $^h$	. <i>L</i>	nou	ın		n trash/debris
eŋlıma	ık <sup>n</sup>	nou	ın	water-	surface
eia		nou	ın	seven	
esl		nou		eight	
eu3		greet	ing	hello	
filmin		nou	ın	baleen	L
fʊf		nou	ın	eleven	
iːaef	ad	jective	/adverb	quick/	quickly
$\mathrm{ir}^h$		nou	ın	ten	
$\mathrm{l}\varepsilon\mathrm{k}^h$		ver	b	flap	
lı		prepos	sition	throug	gh (location)
$\mathrm{l}\mathfrak{x}\mathrm{at}^h$		ver	b	bite	
lamas		nou	ın	hagfisl	h
laz		ver	b	chew	
lai		nou	ın	directi	ion/advice
les		postpo	sition	before	(time)
mɹ∫am			/adverb		c/desperate
тла .		postpo		•	location)
məmei		nou		tuna	
$\mathrm{mit}^h$		conjun			o/therefore (verbal conjunction)
mıŋɛn		ver		,	/migrate
mini		ver			r/show up
$\mathrm{m}\mathrm{v}\mathrm{t}^h$		nou	ın	five	

	IPA Part of	Speech English Translation	
maılın	proper noun	Marlin	
mei	postposition	at (location)	
$\mathrm{mlat}^h$	conjunction	and-then (verbal conunction)	
	Ū		
naxı	adjective/adverb	huge	
neŋnak $^h$	noun	eye of storm/whirlpool	
nexml	verb	grow	
nʊ	preposition	to (location)	
nuai	proper noun	Dory	
navnil	noun	whale	
naum	verb	sing	
naʊzi	verb	blow/exhale	
sœ	postposition	in (location)	
safi	noun	dark-ocean	
sam	adjective/adverb	dark	
sula	verb	end	
sa	noun	three	
$\mathrm{sa}\theta$	verb	beg/plead	
$\mathrm{saxt}^h$	noun	thirty six	
$\operatorname{saip}^h$	noun	tail-fin	
sazım	noun	falling tide (11:00 am)	
sei	postposition	into (location)	
$\mathrm{sm}$	postposition	with (accompaniment)	
$\operatorname{sim} \sigma$	noun	iceberg	
$\sin xi$	proper noun	Sydney	
$si_3$ im	noun	rising tide (5:00 am)	
swil	adverb	while	
suis	postposition	at (time)	
wσlθ	noun	water-mass	
wim	noun	mouth	
xen	noun	hour	
xœxi	verb	reprimand/scold	

# Appendix B

# Hand and labelled fingers

