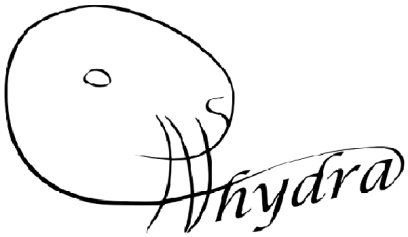

~~~ Sea otter foraging analysis (SOFA) V. 3.1 ~~~

Project: Monterey_2006_2024, Results file: Rslt_Grp-Period_2025_Feb_14_10hr.rdata

SOFA created for U.S. Geological Survey and Seattle Aquarium by M.T. Tinker

2025-02-14

Summary

The analytic approach is collectively referred to as the "Sea Otter Foraging Analysis", or SOFA. Standard variables recorded in the field from foraging sea otters - duration of dive and surface intervals, prey captures, prey sizes, etc. - are first summarized for all the dives in each feeding bout, and then Bayesian methods are used to fit a process model to these observed data, in order to estimate key "latent" parameters. Latent parameters of interest include how sea otters allocate their effort to foraging for different prey types, how much each of these prey types contributes to the resulting diet, several prey-specific parameters (mean size, handling time, capture rates, and the functional relationship between the latter two parameters and prey size), and the overall net rate of biomass consumption and energy intake. The process model uses a probabilistic approach to account for incomplete data (including un-identified prey and missing data fields from some records), and the inherent biases associated with incomplete data (e.g. which types and sizes of prey are more likely to be recorded as un-identified). The resulting parameter estimates account for all sources of uncertainty, including sampling error, measurement error, uncertainty in the functional relationship between prey size and edible biomass, error in caloric density estimates, and various other sources of parameter uncertainty.

Methods

Observation model

SOFA is based around a simple conceptual model of sea otter foraging that corresponds to what an observer records in the field. Specifically, during a period of feeding activity (a "Bout", consisting of a contiguous sequence of feeding dives), sea otters make decisions as to how to allocate their effort among multiple potential prey types. The term "prey type" is used here in a flexible way: a prey type may be a single species (*Tegula brunnea*), or it may be a group of related species (e.g. "marine snails"). Each prey type can be defined by several observable metrics including its capture rate (the number of items encountered and captured per

minute of time searching for that prey during dives), the time required to handle an item of that prey type once captured, the size of each item and the correlations between prey size and the capture rate and per-item handling time. The size of each captured prey item is recorded in terms of the maximum linear dimension relative to paw size, for later conversion to an absolute value (SZ_{j}, in mm). The total time in a bout allocated to each prey type j consists of the sum of the dive durations (DT_{j}) for dives allocated to acquiring that prey type, and the sum of time at the surface spent handling items of that prey type (HT_{j}), both of which are measured in seconds. For dives where multiple prey types are captured, we pro-rate the time among prey types: that is, the relevant DT and HT values are divided among prey types, proportional to their size and number. In addition to the confirmed time allocated to each prey type, there is also "unallocated time" (UT) during a bout, which consists of the total duration of unsuccessful dives and time at surface (ST) not handing prey. We can partition this unallocated time among prey types according to their proportional contributions to confirmed allocated time, PA_{j}. Thus, the total number of minutes (TM) allocated to prey type j in bout i is calculated as:

$$TM_{j,i} = \frac{1}{60}\left[\sum DT_{j,i} + \sum HT_{j,i} + \left(PA_{j,i}\sum UT_i\right)\right]$$

We note that one of the prey types for which we calculate total allocated minutes consists of un-identified prey items (UNID): we assume that these UNID prey items are a collection of all the other known prey types, but we do not know *a priori* the proportion of each known prey type comprising the UNID category (these values are to be estimated by the model, as explained below).

For each observed bout we calculate the total number of minutes allocated to each prey type ($TM_{\mathrm{j,i}}$), and the mean value (averaged across dives) of four other statistics: the size of items of type j ($SZ.obs_{\mathrm{j,i}}$), the handling time per item of prey type j ($H.obs_{\mathrm{j,i}}$), the proportion of dives allocated to a prey type that are successful (PSD_{j}), and the per-item capture rate during dives allocated to prey type j ($cp.obs_{\mathrm{j,i}}$). For the latter statistic we exclude handling time at the surface, thus ensuring that the capture rate statistic is equivalent to the *per-capita* attack rate parameter in type-II functional response models.

Process model

The observed activity of sea otter foraging can be approximated by a sequence of mathematical equations that together represent the process model, the expected dynamics of which are determined by the values of the parameters in the equations (Table 1). We let η_j represent the mean proportional allocation of foraging effort to prey type j, excluding the UNID class (i.e. TRUE effort allocation if all prey were positively identified), such that:

$$\sum_{j=1}^{J} \eta_j = 1$$

For each prey type j we also specify parameter ω_j as the probability that an item of that prey type may not be positively identified. We calculate values of ω_j based on the empirical distributions of the log of handling time and the log of mean prey size of prey type j, and the degree to which these distributions overlap with the same distributions for the UNID prey class. We measure joint proportional overlap of multiple distributions using the Bhattacharyya distance metric (BC_{j}), calculating ω_j as exp(-BC_{j}). This approach reflects the assumption that the more similar the joint density distributions of size and handling time between UNID and prey type j, the more likely it is that j contributes to the UNID prey class. To account for unidentified prey in our observed data set, we define the parameter α as the relative allocation of effort to each prey type INCLUDING the UNID prey class. For positively identified prey types:

$$\alpha_j = \eta_j \cdot (1 - \omega_j) \cdot \tau_B$$

while for the unidentified prey class (UNID):

$$\alpha_u = \sum_j \eta_j \cdot \omega_j \cdot \tau_B$$

In the above equations, parameter τ_B represents a fitted precision parameter, allowing us to use α_j as the base parameters for a Dirichlet distribution that defines the relative probabilities of a prey type being observed in a given bout:

$$[\theta_{j,i}] \sim Dirichlet\,(\alpha_1, \alpha_2,\ ...\ \alpha_J, \alpha_u)$$

where $\theta_{j,i}$ is the expected proportional allocation of effort to each prey type for bout i.

We define parameter $\mu_{s,j}$ as the mean log size (mm) for each prey type. For handling time and capture rate, we note that both of these parameters are correlated strongly with prey size: specifically, there is an approximately linear relationship between the log of each variable and the log of prey size. We therefore calculate expected log handling time ($\mu_{h,j}$) and expected log capture rate ($\mu_{c,j}$) as derived parameters given the size of prey type j observed on a given bout:

$$\mu_{h,j} = \psi_{1,j} + \psi_{2,j} \cdot \log(SZ.obs_j)$$

$$\mu_{c,j} = \phi_{1,j} - \phi_{2,j} \cdot \log(SZ.obs_j)$$

where the fitted parameters $\phi_{1,j}$, $\phi_{2,j}$, $\psi_{1,j}$, and $\psi_{2,j}$, together describe the functional relationships between handling time, capture rate, and prey size for each prey type. We allow for variation in log size, log handling time and log capture rate across bouts by defining variance parameters $\sigma_{s,j}$, $\sigma_{h,j}$, and $\sigma_{c,j}$. We can also calculate mean parameter values averaged over all bouts: specifically, if we define $\bar{\mu}_{s,j}$ as the mean log size of prey type j over the entire data set, then we can calculate mean size, handling time and capture rate for prey type j as:

$$\bar{S}_j = \exp\left(\bar{\mu}_{s,j} + {}^{\sigma^2_{s,j}}\!/_2\right)$$

$$\bar{H}_j = \exp\left((\mu_{h,j}|\bar{\mu}_{s,j}, \psi_j) + {}^{\sigma^2_{h,j}}\!/_2\right)$$

$$\overline{cp}_j = \exp\left((\mu_{c,j}|\bar{\mu}_{s,j}, \phi_j) + {}^{\sigma^2_{c,j}}\!/_2\right)$$

We define parameter λ_j the expected proportion of successful dives associated with each prey type, which we estimate as a logit parameter with Cauchy prior:

$$logit(\lambda_j) \sim\ Cauchy\,(0, 2.5)$$

And the overall mean dive success rate is calculated as:

$$\overline{\lambda} = \sum_{j=1}^{J} \eta_j \cdot \overline{\lambda}_j$$

We next define several "derived" parameters that help simplify or expand our interpretation of model results. The biomass consumption rate for prey type j (CR_{j}) during foraging time allocated to that prey type can be calculated using Hollings disc equation (i.e. the type-II function response equation):

$$CR_j = {}^{cp_j \cdot m_j}\!/_{1+cp_j \cdot H_j}$$

where the per-item biomass of prey type j (m_{j}) is calcuated from taxa-specific log-log relationships between maximum linear dimension (mm) and wet edible biomass (g), based on published data. We note that the handling time, capture rate and biomass values are all assumed to vary across bouts, corresponding to variation in prey size: we account for this source of uncertainty, as well as the uncertainty in the fitted mass-length relationships, by using a re-sampling approach in the calculation of CR_{j}. We calculate the prey-specific energy intake rates in a similar way:

$$ER_j = {}^{cp_j \cdot m_j \cdot Cdens_j}\!/_{1+cp_j \cdot H_j}$$

where $Cdens_{\mathrm{j}}$ is the caloric density (kcal/g) of items of prey type j, based on published data.

In addition to prey-specific parameters, we also integrate consumption rate and energy intake rates across all prey types, accounting for proportional allocation of effort among prey types, to obtain the overall consumption rate (CR) and energy intake rate (ER):

$$\overline{CR} = \sum_j \eta_j \cdot CR_j$$

$$\overline{ER} = \sum_j \eta_j \cdot ER_j$$

where η_j represents the mean proportional allocation of foraging effort to prey type j, as defined above.

Diet composition, defined as the proportional contribution (in terms of consumed biomass) of each prey type to the overall diet ($/pi_j$), is calculated as:

$$\pi_j = (\eta_j \cdot \overline{cr}_j) / \sum_{j=1}^{J} \eta_j \cdot \overline{cr}_j$$

The proportional contribution of each prey type to the UNID prey class is represented by parameter υ_j, calculated as:

$$\upsilon_j = \omega_j \cdot \pi_j \cdot {}^{1}\!/_{EB_j}$$

where EB_{j} is the average biomass per prey item of prey type j.

Finally, the process model can be modified to account for random effects of categorical group variables (age, sex, area, time period) by utilizing a hierarchical approach for certain key parameters. We allow foraging effort to vary across groups using a Dirichlet-Multinomial approach:

$$\eta_{g,j} \sim Dirichlet\,(\eta_j \cdot \tau_G)$$

where $\eta_{g,j}$ is the mean proportional allocation of foraging effort to prey type j in bouts belonging to group level g, and parameter τ_G is a fitted precision parameter that determines the degree of consistency in diet across groups. We assume that log prey size for each prey type is normally distributed across groups with mean equal to $\bar{\mu}_{s,j}$ and standard error as a fitted parameter. We make the same assumption for $\phi_{1,j}$, $\psi_{1,j}$ and λ_j, thereby allowing prey specific handling times, capture rates and dive success rates to vary across groups. By treating these base parameters hierarchically, we also allow for variation in the derived parameters of diet composition, mean consumption rates and mean energy intake rates across groups. Table 1 provides a summary of all parameters estimated by the model.

Table 1. Summary of estimated parameters

Parameter	Description
$\overline{CR}$	Mean overall net biomass consumption rate (CR, g/min) while foraging
$\overline{ER}$	Mean overall net energy intake rate (ER, kcal/min) while foraging
$\overline{\lambda}$	Mean overall dive success rate (proportion successful dives)
$\bar{S}_j$	Mean size, prey type j
$\bar{H}_j$	Mean handling time, prey type j
$\bar{cp}_j$	Mean capture rate, prey type j
$\bar{CR}_j$	Mean biomass consumtion rate, prey type j
$\bar{ER}_j$	Mean energy intake rate, prey type j
$\bar{\lambda}_j$	Mean dive success rate, prey type j

Parameter	Description
$\bar{\phi}_{1,j}$	cp vs log(Size) function, intercept parameter, prey type j
$\phi_{2,j}$	cp vs log(Size) function, slope parameter, prey type j
$\bar{\psi}_{1,j}$	H vs log(Size) function, intercept parameter, prey type j
$\psi_{2,j}$	H vs log(Size) function, slope parameter, prey type j
$\bar{\eta}_j$	Proportion of foraging effort allocated to prey type j
$\bar{\pi}_j$	Proportion of diet (biomass consumed) made up of prey type j
$\bar{\omega}_j$	Proportion of prey type j identified (not recorded as "un-identified" prey)
$\bar{\upsilon}_j$	Proportional contribution of prey type j to un-identified prey
$\sigma_{c,j}$	Std error in log(CR) across bouts for a given prey type
$\sigma_{h,j}$	Std error in log(H) across bouts for a given prey type
$\sigma_{s,j}$	Std error in log(S) across bouts for a given prey type
$\sigma_{l,j}$	Std error in logit(lambda) across bouts for a given prey type
τ_B	Precision (consistency) in diet composition across bouts (within group)
τ_G	Precision (consistency) in diet composition across groups (if defined)
CR_g	Mean net consumption rate (CR, g/min) while foraging, group g
ER_g	Mean net energy intake rate (ER, kcal/min) while foraging, group g
$\bar{\lambda}_g$	Mean overall dive success rate, group g
$S_{g,j}$	Mean size, prey type j, group g
$H_{g,j}$	Mean handling time, prey type j, group g
$cp_{g,j}$	Mean capture rate, prey type j, group g
$CR_{g,j}$	Mean consumption rate, prey type j, group g
$ER_{g,j}$	Mean energy intake rate, prey type j, group g
$\lambda_{g,j}$	Mean dive success rate, prey type j, group g
$\phi_{1,g,j}$	cp vs log(Size) function, intercept parameter, prey type j, group g
$\psi_{1,g,j}$	H vs log(Size) function, intercept parameter, prey type j, group g
$\eta_{g,j}$	Proportion of foraging effort allocated to prey type j, group g
$\pi_{g,j}$	Proportion of diet (biomass consumed) made up of prey type j, group g
$\omega_{g,j}$	Proportion of prey type j un-identified, group g
$\upsilon_{g,j}$	Contribution of prey type j to un-identified prey, group g

Note: parameters with 'g' subscripts estimated if by-groups were incorporated in analysis

Relating observation model and process model

By comparing expected distributions from the process model with observed data, the statistics recorded from foraging bouts constrain the possible values of the parameters of the process model. Specifically, we assume that the observed distribution of minutes allocated to each prey type on a given bout can be described by a multinomial distribution:

$$[TM_{j,i}] \sim Multinomial\left([\theta_{j,i}]\right)$$

We assume that observed mean prey size for prey type j on bout i is described by a log-normal distribution:

$$SZ.obs_{j,i} \sim \ lognormal\left(\mu_{s,j}, \sigma_{s,j}\right)$$

where $\sigma_{s,j}$ is a parameter describing the variance in the mean size of prey j across bouts.

We assume that observed mean handling time and mean capture rate for prey type j on bout i are also described by log-normal distributions:

$$H.obs_{j,i} \sim \ lognormal\left(\psi_{1,j} + \psi_{2,j} \cdot \log(SZ.obs_{j,i}), \sigma_{h,j}\right)$$

$$cp.obs_{j,i} \sim \ lognormal\left(\phi_{1,j} - \phi_{2,j} \cdot \log(SZ.obs_{j,i}), \sigma_{c,j}\right)$$

where $\sigma_{h,j}$ and $\sigma_{c,j}$ are fitted parameters describing variance in these statistics across bouts.

We assume that the observed dive success rates specific to each prey type (PSD_{j}), logit-transformed, are described by a normal distribution:

$$logit(PSD_j) \sim \ normal\left(logit(\lambda_j), \sigma_{l,j}\right)$$

where $\sigma_{l,j}$ is a fitted parameter describing variance in logit dive success rate across bouts.

We use standard Markov-Chain Monte Carlo methods to fit the model to the foraging data, with uninformative priors for all model parameters (Cauchy priors for unconstrained parameters and half-Cauchy priors for parameters constrained to be positive). We evaluate model convergence by graphically examining chain mixing and ensuring that the Rhat statistic is close to 1 for all estimated parameters. We evaluate model fit using graphical posterior predictive checks, ensuring that the distributions of out-of-sample predictions are consistent with observed data. We present summaries of posterior distributions for both base parameters and derived parameters such as biomass consumption and energy intake rate.

Results

Both graphical and tabular results are presented below. In some cases prey types are referred to numerically (e.g. as subscripts for prey-specific parameters), in which case the numbers correspond to prey types as summarized in Table 2.

Table 2: Prey types included in the analysis

TypeN	PreyType	Description	Class	Min_size_mm
1	urchin	urchins, various sp	urchin	25
2	mussel	mussels	mussel	25
3	clam	clams, various species	clam	25
4	abalone	abalone, various sp	abalone	30
5	cancrid_crab	Cancr crabs	cancrid_crab	25
6	kelp_crab	kelp crabs	kelp_crab	30
7	crab_other	Other crabs	other_crab	20
8	snail	snails, various sp	snail	15

Table 2: (continued)

TypeN	PreyType	Description	Class	Min_size_mm
9	star	sea stars	star	30
10	cephalapod	octopus and squid	cephalapod	30
11	other	chitons, limpets, barnacles,etc.	other_hardsub	10
12	UNID	UN-IDENTIFIED	NA	NA

The posterior estimates for net consumption rate (CR) and energy intake rate (ER), for the data set as a whole, are shown in Figure 1, and summarized in Table 3. Posterior density plots are also shown for estimates of foraging effort allocation among prey types, proportional contribution to diet (in terms of consumed biomass) by prey type, and estimates mean handling time, size, consumption rate and energy intake rate for each prey type.

If the SOFA analysis being summarized incorporated group-level differences in foraging behavior (e.g. area-based differences, time-based differences or differences among individual animals), a second series of plots are presented showing the same statistics described above but for each level of the grouping variable(s). See Table 2b

Table 3: Group levels used for by-group statitics

GroupID	Period	Nbouts	Groupname
1	2006	5	2006
2	2007	209	2007
3	2008	177	2008
4	2009	145	2009
5	2010	164	2010
6	2011	255	2011
7	2012	7	2012
8	2013	2	2013
9	2014	11	2014
10	2015	51	2015
11	2016	353	2016
12	2017	630	2017
13	2018	478	2018
14	2019	184	2019
15	2020	17	2020
16	2021	15	2021
17	2022	62	2022
18	2023	211	2023
19	2024	74	2024

Tabular summaries of all statistics (both for all data combined and by group levels, if appropriate) are provided at the end of the report.

Figures, statistics for ALL data

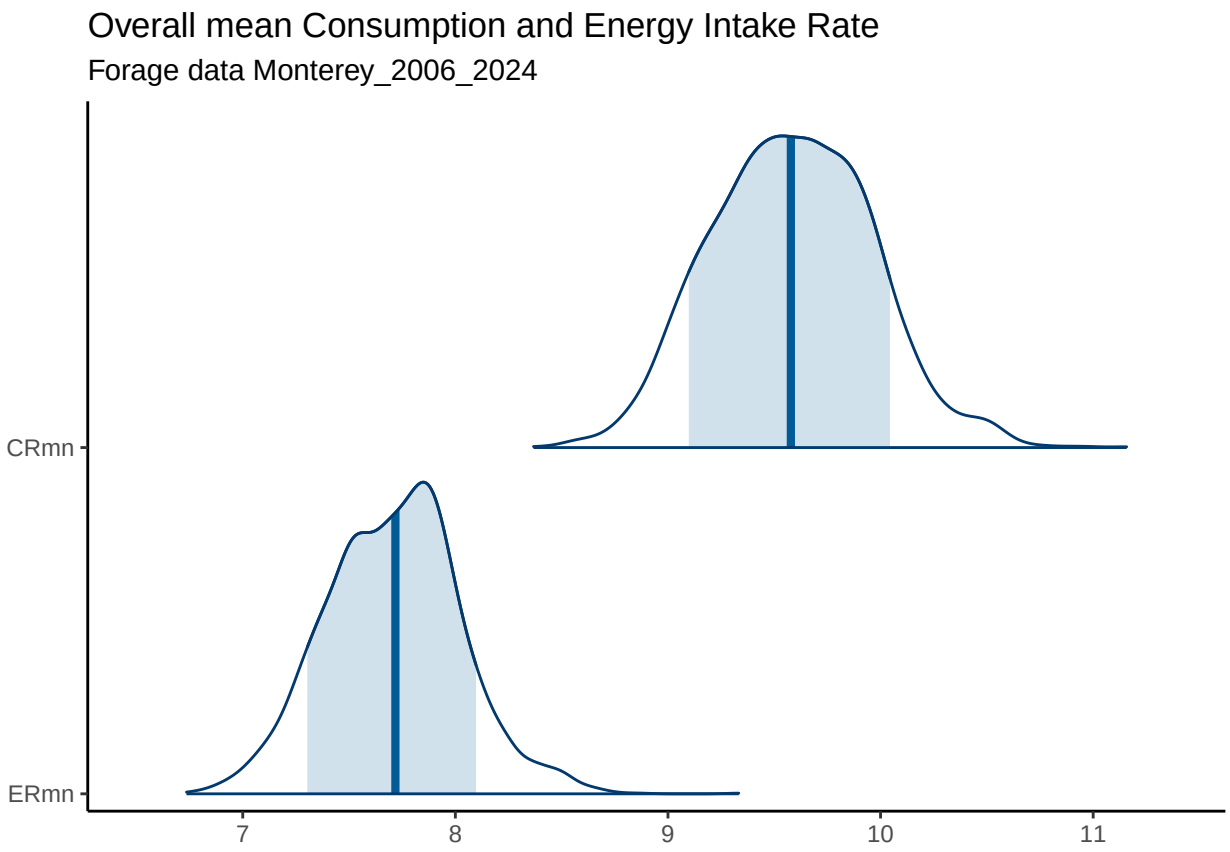

Figure 1: Density plot showing posterior distributions for consumption rate ($\bar{CR}$, g/min) and rate of energy intake ($\bar{ER}$, kcal/min) for the overall data set

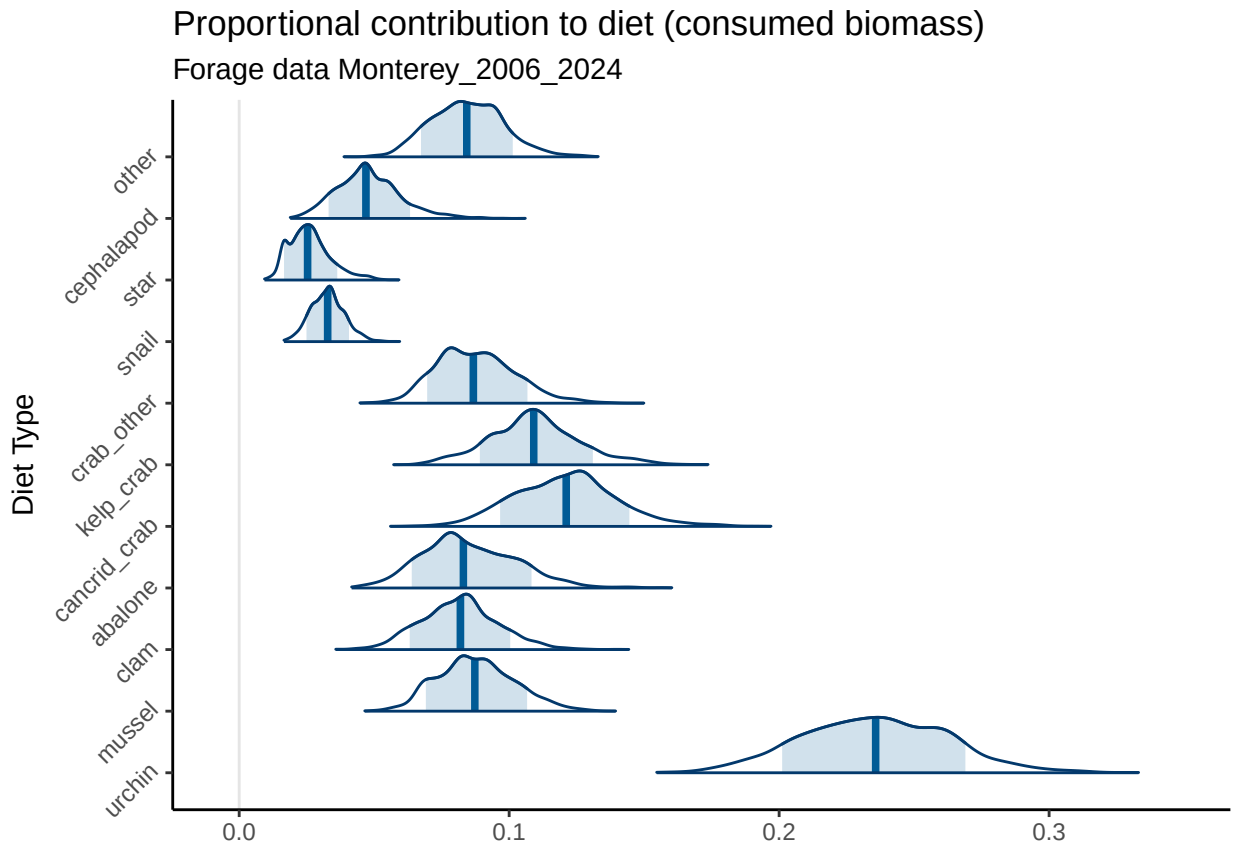

Figure 2: Density plot showing posterior distributions for π_j, the proportion of diet (biomass consumed) made up of prey type j

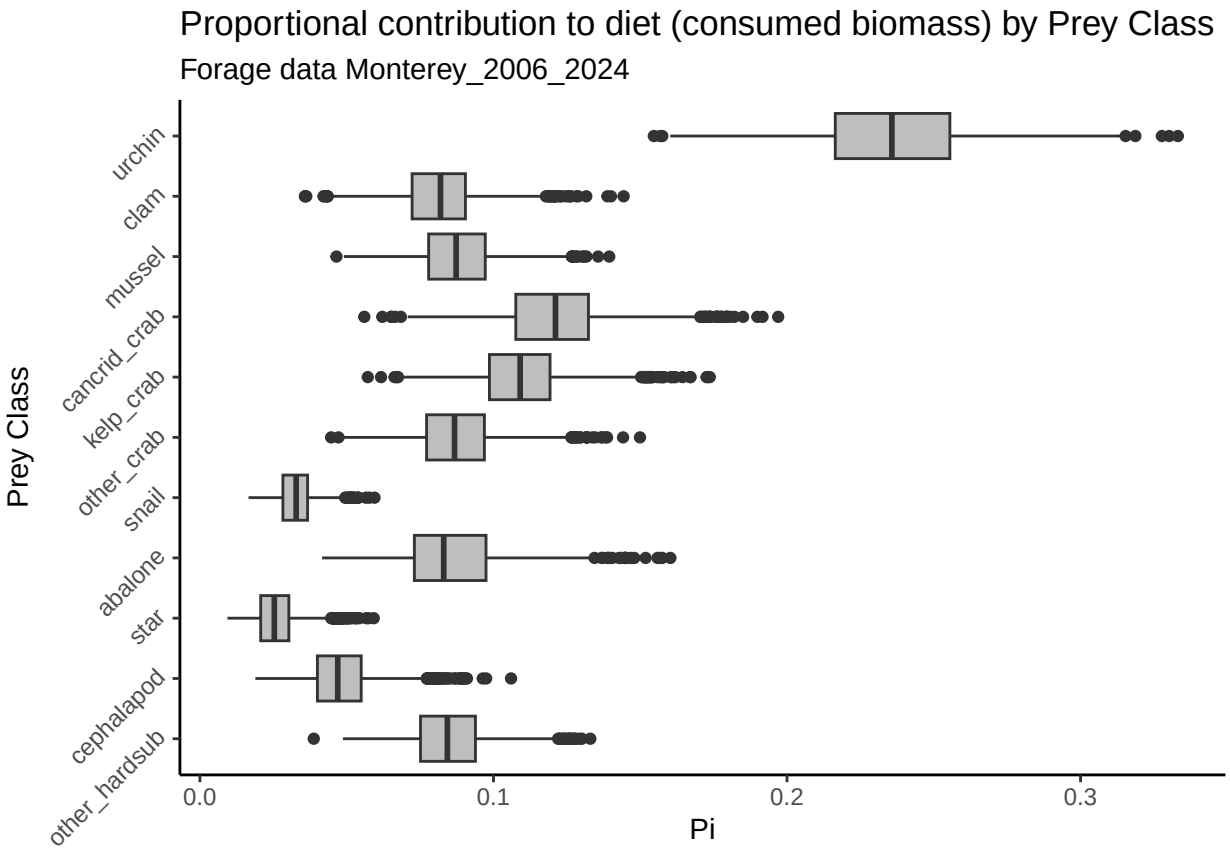

Figure 3: Boxplot showing posterior distributions for diet composition by Prey Class

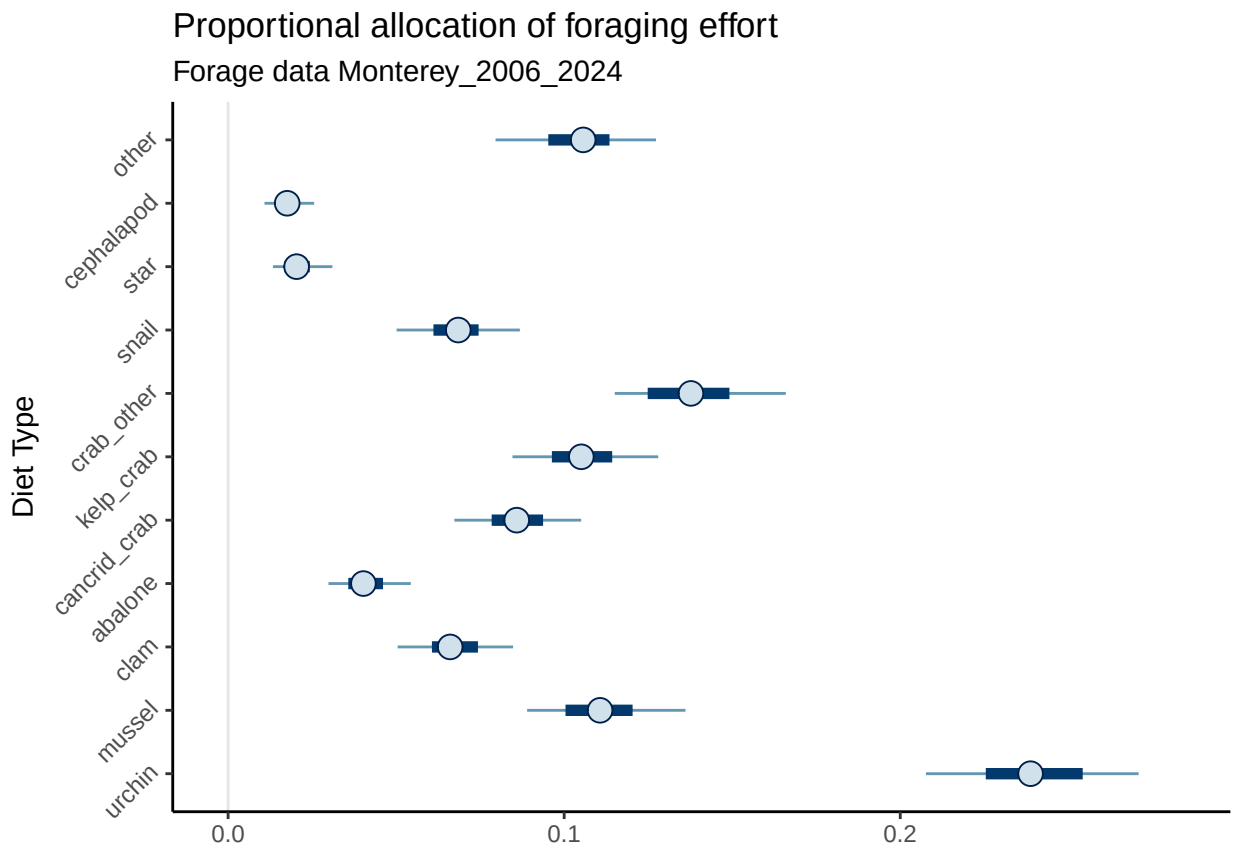

Figure 4: Caterpiller plot showing posterior distributions for η_j, the relative allocation of effort to each prey type j

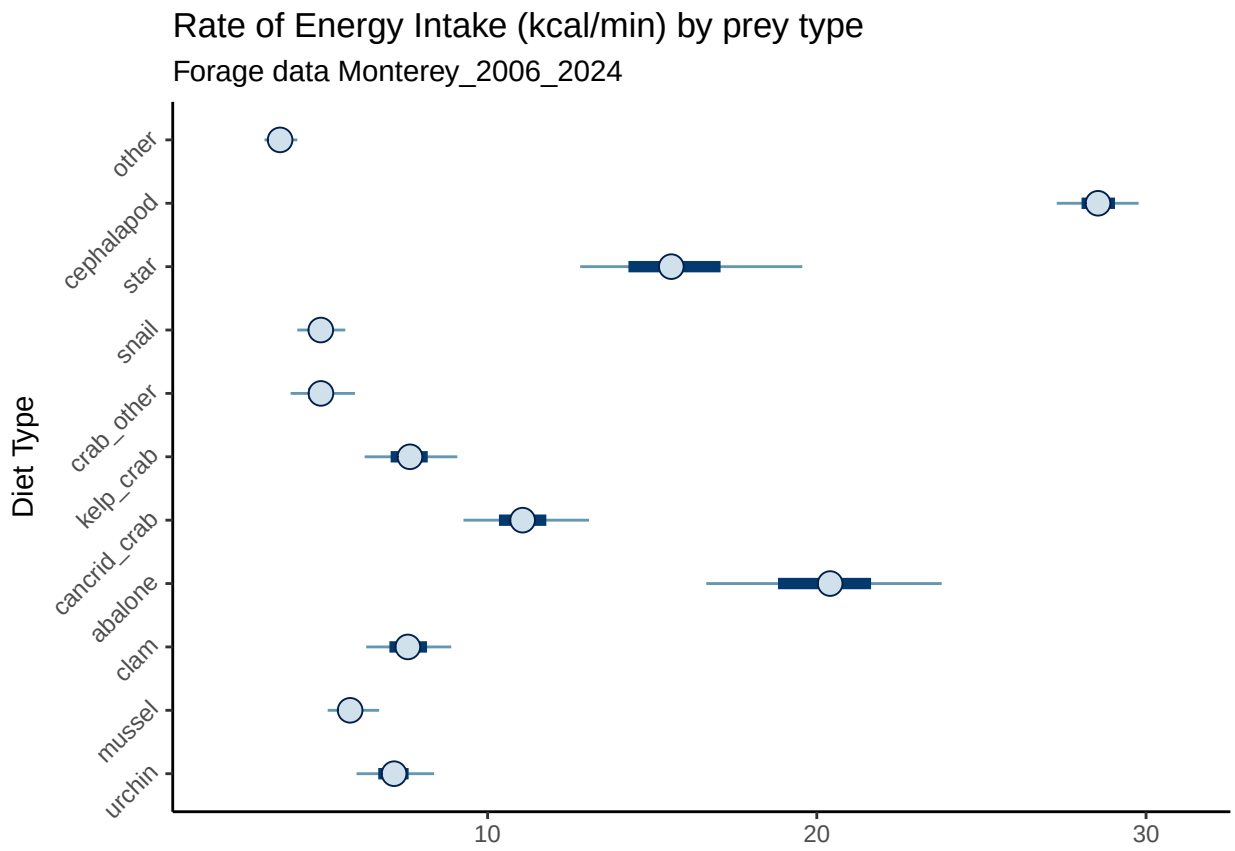

Figure 5: Caterpiller plot showing posterior distributions for the rate of energy intake while feeding on each prey type j

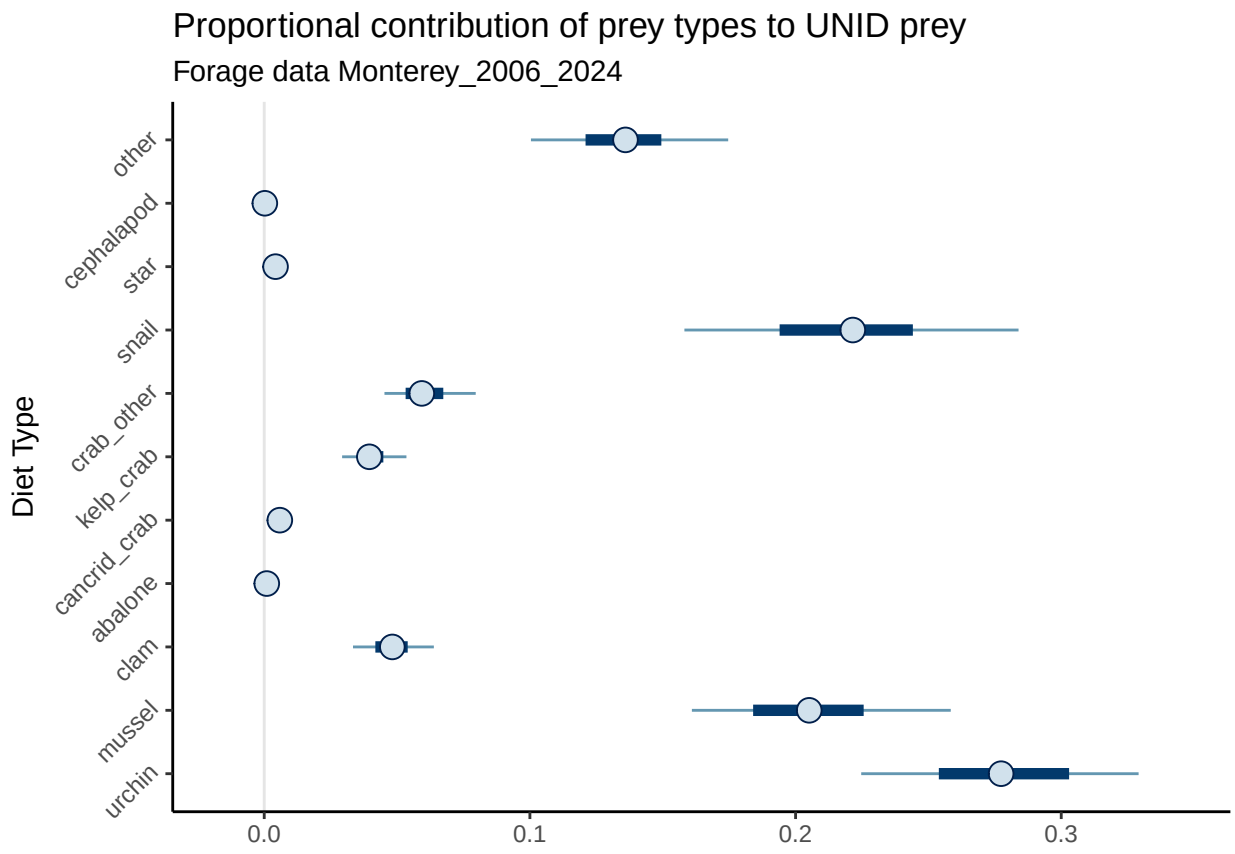

Figure 6: Caterpiller plot showing posterior distributions for υ_j, the relative contribution to un-identified of each prey type j

Figures, statistics by group level

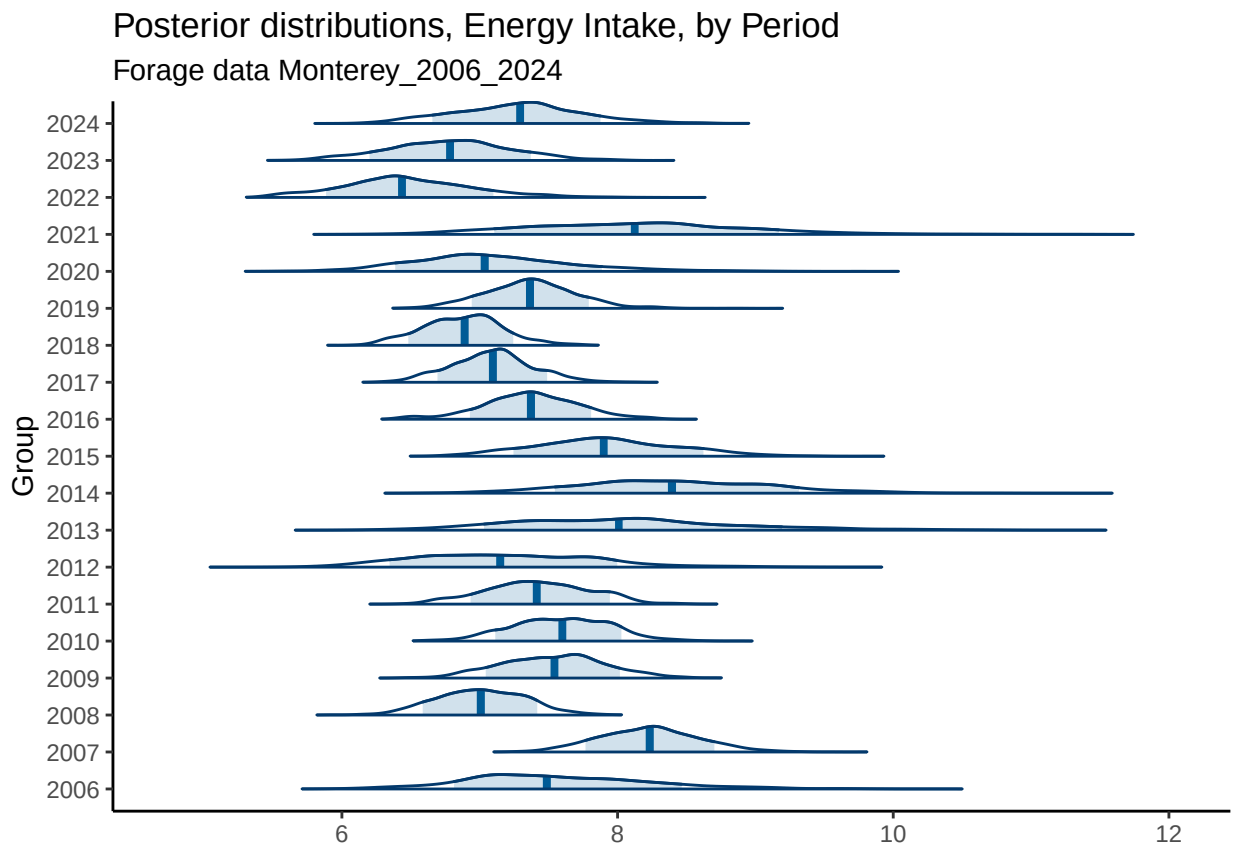

Figure 7: Density plot showing posterior distributions for rate of energy intake ($\bar{ER}_g$, kcal/min) for each group level

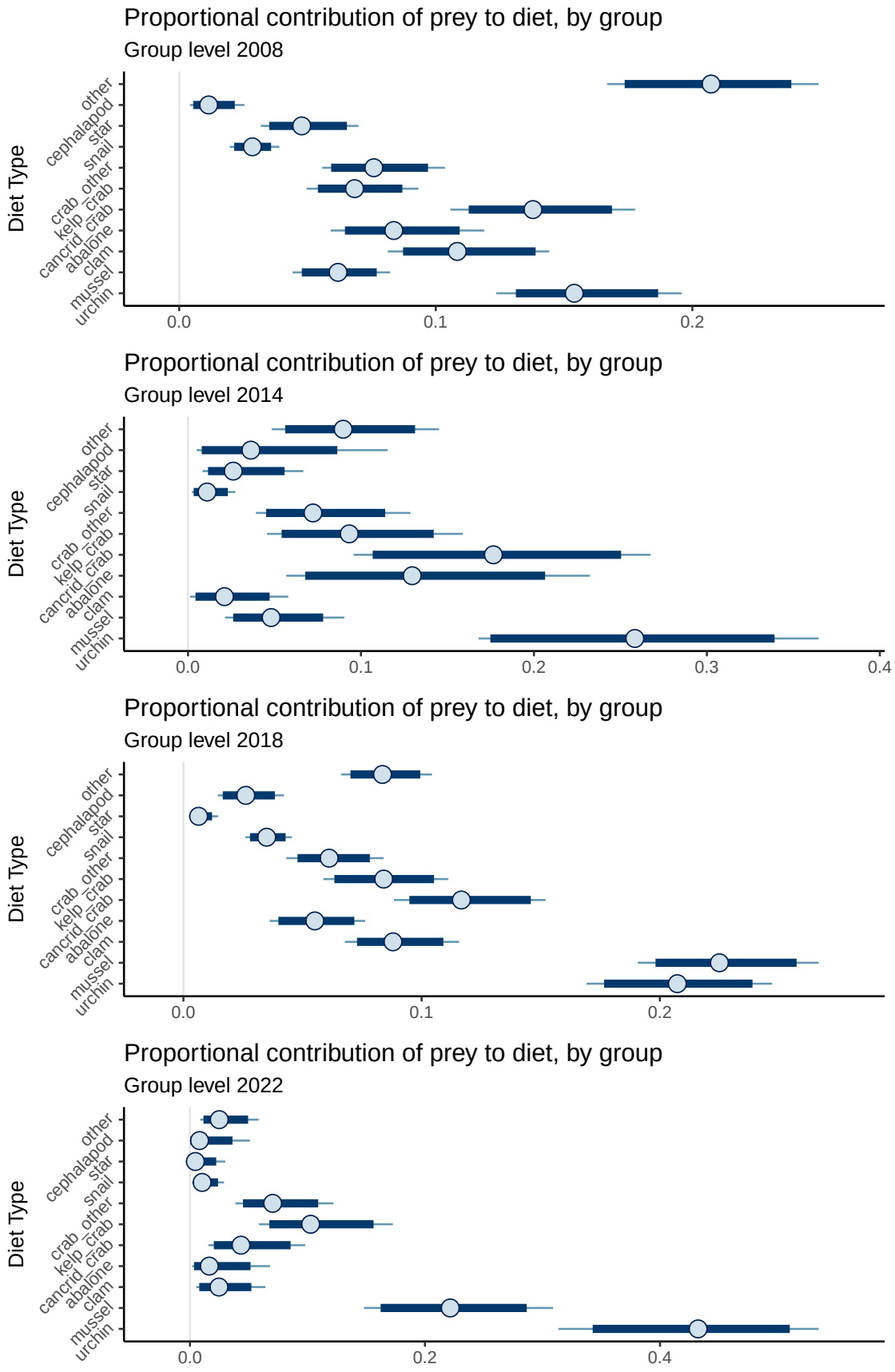

Figure 8: Caterpiller plots showing posterior distributions for $\pi_{g,j}$, the proportion of diet (biomass consumed) made up of prey type j for group g

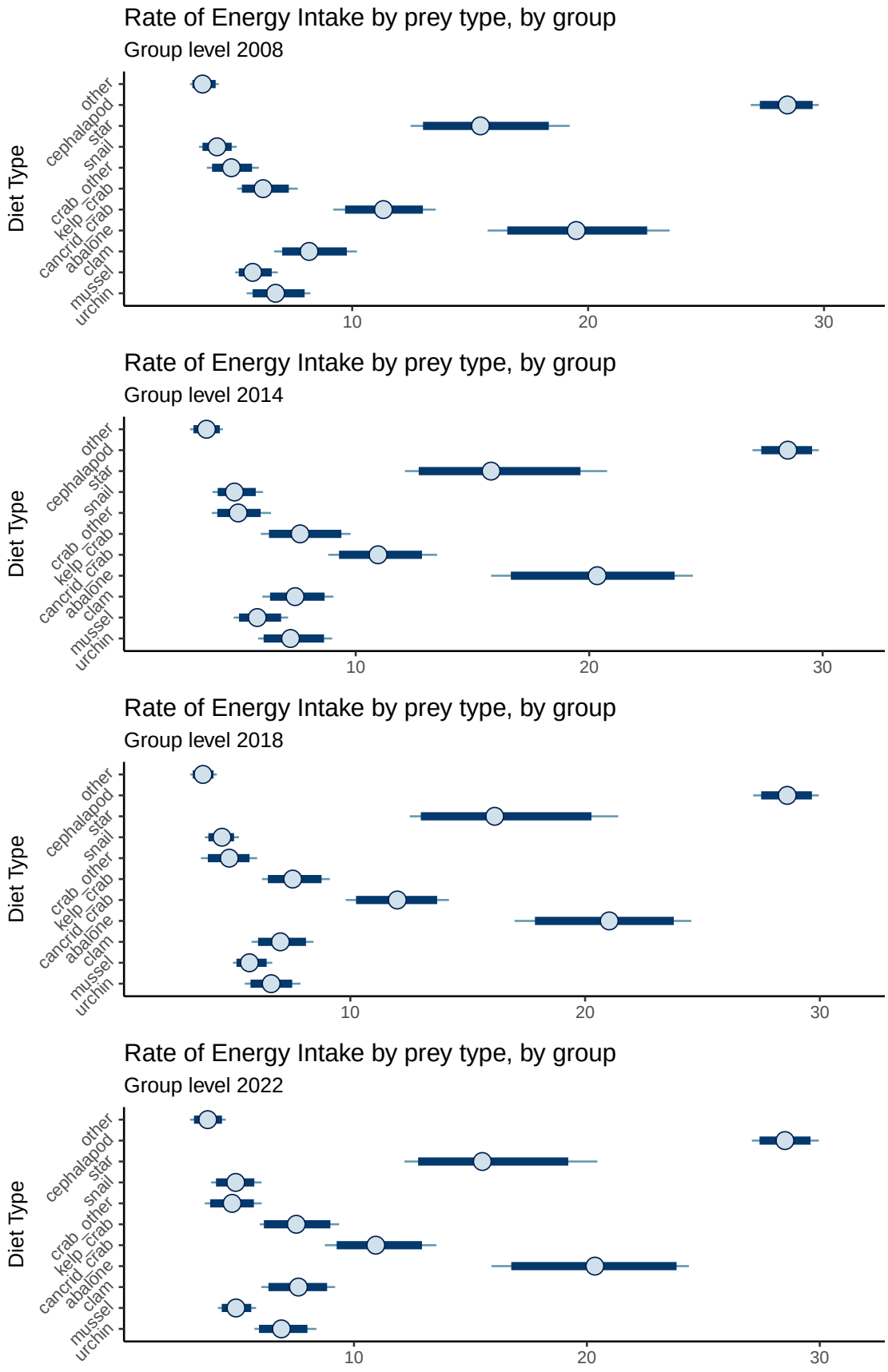

Figure 9: Caterpiller plot showing posterior distributions for the rate of energy intake while feeding on each prey type j for group g

Tables, statistics for ALL data

Table 4: Parameter estimates for consumption rate ($\bar{CR}$, g/min), rate of energy intake ($\bar{ER}$, kcal/min), and dive success rate ($\bar{\lambda}$) for the overall data set

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
CR_bar	9.5930	0.376700	8.8910	10.3500	266.6	1.052
ER_bar	7.7180	0.316200	7.1220	8.3750	624.9	1.028
Lambda_bar	0.8568	0.008745	0.8399	0.8743	259.0	1.052

Table 5: Parameter estimates for mean size, $\bar{S}_j$ (mm), by prey type, for the overall data set

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
S_bar_1	40.07103	1.4796177	37.25911	43.13006	774.2581	1.027626
S_bar_2	42.31352	1.7699811	38.92592	45.96447	1362.0093	1.111692
S_bar_3	55.14427	2.7564574	50.13049	60.74530	482.8714	1.059835
S_bar_4	101.24836	6.6102511	88.25446	114.43695	467.0369	1.057449
S_bar_5	82.48842	4.9361021	73.36777	92.88921	472.1229	1.087537
S_bar_6	46.93654	2.2192179	42.74058	51.27216	166.5987	1.076656
S_bar_7	39.78825	2.1318754	35.87920	44.06415	225.6074	1.059117
S_bar_8	22.99946	0.9708064	21.13228	25.02370	1514.9328	1.066274
S_bar_9	50.97003	4.7122538	43.25142	60.92562	164.5880	1.085968
S_bar_10	71.24686	8.0868172	55.39366	87.89688	157.2508	1.084742
S_bar_11	61.39274	3.3979939	55.02495	67.96330	127.0358	1.115419

Table 6: Parameter estimates for mean handling time, $\bar{H}_j$ (sec), by prey type, for the overall data set

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
H_bar_1	34.54628	1.750355	31.24428	38.04396	321.7288	1.041045
H_bar_2	24.02067	1.389507	21.40007	26.79774	394.8853	1.054675
H_bar_3	40.58430	2.996557	35.30392	46.91522	400.7191	1.032546
H_bar_4	116.81754	14.861470	90.71900	148.94395	1172.0751	1.027483
H_bar_5	116.92072	13.092428	92.90312	145.26173	239.8137	1.056175
H_bar_6	65.61768	5.499773	55.58073	77.30188	435.3922	1.030116
H_bar_7	42.75856	4.513287	34.80155	52.85708	1335.9932	1.017876
H_bar_8	16.48076	1.150059	14.23363	18.82191	177.0072	1.072985
H_bar_9	84.94961	9.218116	67.07088	104.79660	185.0377	1.069723
H_bar_10	122.15163	18.085736	91.78073	163.10153	95.0218	1.143218
H_bar_11	29.77634	1.933598	26.08732	33.43429	208.6970	1.063924

Table 7: Parameter estimates for mean consumption rate by prey type $\bar{cr}_j$ (g/min), for the overall data set

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
cr_1	9.448077	0.9375812	7.708752	11.388080	1210.5356	1.026185
cr_2	7.608972	0.6198186	6.502544	8.942785	1303.8733	1.018794
cr_3	11.668911	1.2149889	9.443517	13.991930	259.2331	1.056263

Table 7: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
cr_4	19.908342	2.1141077	15.632965	24.011055	578.7711	1.033317
cr_5	13.479606	1.4020271	10.834290	16.473292	1192.9474	1.055865
cr_6	9.998113	1.1183279	7.947057	12.276690	208.1050	1.062161
cr_7	6.078086	0.7154185	4.787229	7.612513	276.4849	1.049564
cr_8	4.599736	0.4153239	3.825167	5.476268	280.7528	1.047888
cr_9	11.911003	1.5286754	9.306519	15.324388	230.0302	1.064253
cr_10	26.121085	0.6546530	24.789282	27.387610	441.7443	1.033432
cr_11	7.734089	0.6433801	6.553444	8.980248	349.6973	1.039766

Table 8: Parameter estimates for mean energy intake rate by prey type $\bar{er}_j$ (kcal/min), for the overall data set

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
er_1	7.168019	0.7121661	5.846501	8.646601	1176.9727	1.026224
er_2	5.879545	0.4821909	5.020374	6.918273	1310.3066	1.017366
er_3	7.594910	0.7952282	6.126869	9.126262	260.7447	1.055649
er_4	20.250197	2.1579125	15.856860	24.401798	602.4838	1.033178
er_5	11.095209	1.1570812	8.912299	13.567850	1231.1824	1.053434
er_6	7.668962	0.8601301	6.081315	9.415614	212.9958	1.061017
er_7	4.962771	0.5863997	3.908128	6.220824	286.8338	1.048699
er_8	4.934488	0.4490021	4.094396	5.886976	285.5125	1.047577
er_9	15.803553	2.0301524	12.379955	20.345320	231.0935	1.064461
er_10	28.538785	0.7575532	27.019940	30.013130	502.6969	1.030152
er_11	3.711615	0.3103233	3.143778	4.321249	368.3979	1.038509

Table 9: Parameter estimates for λ_j, mean dive success rate by prey type, for the overall data set

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
lambda_1	0.9279742	0.0086318	0.9119818	0.9423331	121.19933	1.107061
lambda_2	0.9465730	0.0079618	0.9274677	0.9593961	85.26187	1.159569
lambda_3	0.8652008	0.0218424	0.8179779	0.9031750	533.73591	1.059504
lambda_4	0.4048992	0.0513950	0.3078534	0.5086015	383.97367	1.037143
lambda_5	0.6301314	0.0504114	0.5298800	0.7259480	183.05723	1.156591
lambda_6	0.8003332	0.0229132	0.7506845	0.8433476	928.52029	1.031074
lambda_7	0.9070152	0.0156384	0.8746032	0.9366450	96.23948	1.141773
lambda_8	0.9751558	0.0031708	0.9686826	0.9805772	200.61967	1.067946
lambda_9	0.7657823	0.1145377	0.4922018	0.9317643	183.45592	1.114285
lambda_10	0.8114769	0.0771342	0.6191824	0.9272170	156.05004	1.100353
lambda_11	0.8963210	0.0143562	0.8641789	0.9209626	431.51628	1.118813

Table 10: Estimates for $\phi_{1,j}$, the intercept parameter for the function relating log consumption rate to log size, by prey type, for the overall data set

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
phi_1_1	0.7706267	0.1497888	0.4931042	1.0806545	166.81063	1.082830
phi_1_2	1.4900001	0.1187598	1.2746972	1.7426180	303.37575	1.067556
phi_1_3	0.5486871	0.1648362	0.2314394	0.8742518	170.63882	1.082995
phi_1_4	-0.4508253	0.3537434	-0.9819919	0.3583422	108.49601	1.134620
phi_1_5	0.3488421	0.2126996	-0.0582856	0.7367761	114.37553	1.121337
phi_1_6	0.1774189	0.1412364	-0.0668323	0.4886843	166.06376	1.134535
phi_1_7	0.4881554	0.1740313	0.1342218	0.8357608	154.45354	1.160663
phi_1_8	1.9121292	0.0783290	1.7215083	2.0546977	146.59810	1.102098
phi_1_9	-0.1351253	0.1340210	-0.3734940	0.1482282	214.00802	1.136636
phi_1_10	-0.1896748	0.2170394	-0.5186250	0.2638166	72.24431	1.202893
phi_1_11	0.9629359	0.1992551	0.6162515	1.3611422	94.97921	1.158306

Table 11: Estimates for $\phi_{2,j}$, the slope parameter for the function relating log consumption rate to log size, by prey type, for the overall data set

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
phi_2_1	0.1523341	0.0657100	0.0339474	0.2879788	178.69378	1.076720
phi_2_2	0.0958282	0.0493437	0.0120750	0.2008738	244.00877	1.075223
phi_2_3	0.2520064	0.0564416	0.1487323	0.3581877	97.42240	1.138915
phi_2_4	0.1267778	0.0826881	0.0087164	0.3146416	111.97337	1.130300
phi_2_5	0.2025613	0.0532726	0.0976042	0.3015352	125.12520	1.108534
phi_2_6	0.0890842	0.0508714	0.0080589	0.2035728	183.38628	1.141427
phi_2_7	0.1644098	0.0682333	0.0308587	0.3081040	237.22590	1.068585
phi_2_8	0.4802157	0.0602023	0.3576614	0.5995104	378.28004	1.042212
phi_2_9	0.0581403	0.0371858	0.0042818	0.1455003	154.10467	1.089028
phi_2_10	0.0658576	0.0501942	0.0030642	0.1805733	96.49422	1.146314
phi_2_11	0.1912970	0.0565853	0.0871047	0.3021664	128.09463	1.116269

Table 12: Estimates for $\psi_{1,j}$, the intercept parameter for the function relating log handling time to log size, by prey type, for the overall data set

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
psi_1_1	2.874110	0.0963482	2.692592	3.068295	138.61778	1.099281
psi_1_2	2.517156	0.1008999	2.333693	2.712138	148.67230	1.101352
psi_1_3	3.011199	0.1795783	2.697619	3.350738	89.14163	1.168478
psi_1_4	2.520643	0.4509480	1.720941	3.422150	71.75177	1.212792
psi_1_5	2.390791	0.1798795	2.044291	2.742546	111.79005	1.131436
psi_1_6	2.673708	0.1517886	2.370399	2.979183	220.60982	1.069427
psi_1_7	2.600367	0.1460851	2.303994	2.888966	262.29714	1.123283
psi_1_8	2.437859	0.0589042	2.323567	2.555075	621.26307	1.062022
psi_1_9	3.575890	0.2172718	3.109685	3.993721	119.10222	1.192705
psi_1_10	3.416823	0.3312427	2.826409	4.100812	100.77144	1.143493
psi_1_11	2.808021	0.1136027	2.587065	3.017398	126.24070	1.109989

Table 13: Estimates for $\psi_{2,j}$, the slope parameter for the function relating log handling time to log size, by prey type, for the overall data set

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
psi_2_1	0.2809734	0.0408746	0.2023092	0.3613944	119.76593	1.114798
psi_2_2	0.2541098	0.0393149	0.1767806	0.3277887	198.46997	1.082483
psi_2_3	0.2033788	0.0562137	0.0934902	0.3085170	100.49616	1.142992
psi_2_4	0.4742280	0.0985215	0.2727760	0.6500756	74.47435	1.203942
psi_2_5	0.5658528	0.0447622	0.4752712	0.6536242	93.31380	1.156788
psi_2_6	0.5513251	0.0555001	0.4388393	0.6610897	248.50998	1.062277
psi_2_7	0.4441093	0.0642327	0.3179584	0.5703383	219.91191	1.093754
psi_2_8	0.3451222	0.0497059	0.2406372	0.4400044	111.75468	1.118165
psi_2_9	0.2341165	0.0621291	0.1097147	0.3546475	140.63441	1.126226
psi_2_10	0.2921779	0.0899983	0.1029155	0.4528005	103.05213	1.137590
psi_2_11	0.1543543	0.0315385	0.0946434	0.2141025	125.59060	1.102240

Table 14: Estimates for η_j, proportional allocation of effort to prey type j, for the overall data set

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
eta_1	0.2393901	0.0200110	0.2002672	0.2761350	171.8951	1.076025
eta_2	0.1109674	0.0150697	0.0833711	0.1411475	175.9304	1.072434
eta_3	0.0670202	0.0105837	0.0475109	0.0893342	1037.2771	1.054604
eta_4	0.0410882	0.0074846	0.0278662	0.0569394	771.1292	1.021134
eta_5	0.0860675	0.0114279	0.0645012	0.1093301	456.3070	1.029542
eta_6	0.1057774	0.0132698	0.0797301	0.1325981	548.1419	1.120317
eta_7	0.1384623	0.0159339	0.1098880	0.1714568	289.0051	1.047083
eta_8	0.0680794	0.0107673	0.0469027	0.0909337	1320.0695	1.060962
eta_9	0.0209190	0.0054308	0.0121349	0.0332431	347.7936	1.048068
eta_10	0.0176689	0.0043962	0.0100316	0.0275741	1481.5943	1.099374
eta_11	0.1045596	0.0141368	0.0761503	0.1326873	199.6299	1.066016

Table 15: Estimates for π_j, proportion of diet (consumed biomass) consisting of prey type j, for the overall data set

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
pi_1	0.2355078	0.0268824	0.1836582	0.2879860	336.0469	1.038550
pi_2	0.0881251	0.0142640	0.0627028	0.1175561	150.9086	1.085818
pi_3	0.0814127	0.0144714	0.0553331	0.1118885	1779.5257	1.048748
pi_4	0.0851996	0.0173841	0.0546953	0.1217761	670.8309	1.032708
pi_5	0.1207834	0.0188841	0.0856814	0.1599700	897.6324	1.019977
pi_6	0.1100547	0.0168558	0.0776788	0.1463235	1598.1053	1.087822
pi_7	0.0878000	0.0144946	0.0634548	0.1182692	231.3157	1.056820
pi_8	0.0327035	0.0061453	0.0211961	0.0453922	531.0532	1.043491
pi_9	0.0260106	0.0076318	0.0147339	0.0443991	182.1665	1.077543
pi_10	0.0480788	0.0117777	0.0276108	0.0748886	1600.4041	1.091650
pi_11	0.0843238	0.0132091	0.0604236	0.1113466	258.1850	1.050839

Table 16: Estimates for ω_j, probability that prey type j is positively identified (and thus not recorded as 'Un-ID' prey), and υ_j, relative contribution of each prey type to the UNID prey category.

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
omega_1	0.1313912	0.0065537	0.1187105	0.1444603	604.64074	1.078197
omega_2	0.1146935	0.0072336	0.1003888	0.1296177	339.79455	1.040654
omega_3	0.1067881	0.0083423	0.0911998	0.1238155	777.72757	1.052607
omega_4	0.0123317	0.0046061	0.0054435	0.0237227	377.17389	1.039453
omega_5	0.0307234	0.0068258	0.0190614	0.0457417	278.96604	1.177821
omega_6	0.0827599	0.0080677	0.0673845	0.0986980	175.64580	1.073815
omega_7	0.1651441	0.0076467	0.1502623	0.1808612	1071.20146	1.139967
omega_8	0.1506485	0.0101607	0.1313150	0.1708575	452.15602	1.101221
omega_9	0.0610311	0.0176112	0.0344814	0.1001860	96.61763	1.141338
omega_10	0.0444542	0.0179061	0.0198672	0.0897268	155.18393	1.084515
omega_11	0.1000344	0.0078235	0.0866437	0.1159104	167.32669	1.079881
upsilon_1	0.2773664	0.0326218	0.2151064	0.3392619	244.22935	1.055120
upsilon_2	0.2063752	0.0303329	0.1509763	0.2687965	165.82782	1.078415
upsilon_3	0.0481834	0.0093739	0.0311504	0.0680972	1441.50678	1.063064
upsilon_4	0.0010577	0.0004274	0.0004261	0.0020930	429.97992	1.035821
upsilon_5	0.0059316	0.0015831	0.0032812	0.0093403	345.36675	1.049555
upsilon_6	0.0407137	0.0075015	0.0275140	0.0566954	1583.92070	1.026972
upsilon_7	0.0606299	0.0104165	0.0428298	0.0828692	331.25326	1.040156
upsilon_8	0.2192475	0.0369136	0.1482113	0.2942232	671.30803	1.034263
upsilon_9	0.0044710	0.0017355	0.0019694	0.0089383	1054.52945	1.057420
upsilon_10	0.0002578	0.0001343	0.0000865	0.0006064	195.60017	1.066950
upsilon_11	0.1357658	0.0218457	0.0955604	0.1816614	271.01323	1.057813

Table 17: Estimates for model variance and precision parameters. Prey-specific standard error values are shown for log-normally distributed observed variables of prey size ($\sigma_{s,j}$), handling time ($\sigma_{h,j}$), consumption rate ($\sigma_{c,j}$) and dive success rate ($\sigma_{l,j}$). Also shown are precision parameters for Dirichlet distributions that describe the relative frequencies of different prey types. Precision parameters determine the consistency in diet composition across bouts (τ_b) and, if applicable, across different groups (τ_g)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
sigma_s_1	0.2039	0.008359	0.18910	0.2218	545.30	1.027
sigma_s_2	0.2616	0.011550	0.23980	0.2855	944.60	1.018
sigma_s_3	0.3318	0.022390	0.29380	0.3792	214.90	1.060
sigma_s_4	0.2630	0.034060	0.20430	0.3377	1309.00	1.118
sigma_s_5	0.3598	0.026490	0.31190	0.4175	1630.00	1.030
sigma_s_6	0.2266	0.012980	0.20370	0.2531	367.70	1.041
sigma_s_7	0.3783	0.022800	0.33790	0.4272	424.10	1.033
sigma_s_8	0.2507	0.012350	0.22880	0.2772	596.20	1.026
sigma_s_9	0.1613	0.056080	0.08618	0.2946	168.20	1.076
sigma_s_10	0.2683	0.071020	0.16700	0.4400	608.60	1.025
sigma_s_11	0.4092	0.020050	0.37310	0.4514	539.90	1.029
sigma_h_1	0.3037	0.014770	0.27690	0.3337	353.50	1.040
sigma_h_2	0.3686	0.018540	0.33560	0.4064	181.90	1.069
sigma_h_3	0.4175	0.036700	0.35500	0.4952	363.50	1.116
sigma_h_4	0.3730	0.058940	0.27410	0.5091	199.60	1.061

Table 17: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
sigma_h_5	0.3084	0.028970	0.25380	0.3708	613.70	1.115
sigma_h_6	0.3107	0.021860	0.27260	0.3568	375.40	1.046
sigma_h_7	0.5639	0.055650	0.45950	0.6842	659.50	1.041
sigma_h_8	0.3908	0.020910	0.35460	0.4375	362.50	1.057
sigma_h_9	0.6394	0.043630	0.56010	0.7304	661.10	1.056
sigma_h_10	0.8243	0.069220	0.70200	0.9747	182.40	1.076
sigma_h_11	0.4363	0.023440	0.39510	0.4869	308.70	1.139
sigma_c_1	0.5037	0.026600	0.45280	0.5547	305.80	1.042
sigma_c_2	0.5537	0.030430	0.49670	0.6161	574.90	1.092
sigma_c_3	0.3719	0.037760	0.30350	0.4528	169.00	1.084
sigma_c_4	0.3016	0.056830	0.21310	0.4350	670.40	1.024
sigma_c_5	0.3000	0.038280	0.23700	0.3884	402.00	1.127
sigma_c_6	0.2769	0.032570	0.22400	0.3421	125.70	1.100
sigma_c_7	0.4809	0.061760	0.37180	0.6141	366.30	1.035
sigma_c_8	0.5494	0.030070	0.49560	0.6139	565.20	1.037
sigma_c_9	0.5308	0.040670	0.45930	0.6172	583.50	1.027
sigma_c_10	0.7491	0.072540	0.63080	0.9022	90.37	1.147
sigma_c_11	0.8199	0.045650	0.73720	0.9065	179.50	1.069
sigma_l_1	1.2750	0.053690	1.16900	1.3810	379.00	1.035
sigma_l_2	1.4510	0.062720	1.33400	1.5830	590.40	1.066
sigma_l_3	1.6490	0.109400	1.45500	1.8800	1129.00	1.106
sigma_l_4	0.9905	0.130800	0.76470	1.2860	2246.00	1.060
sigma_l_5	1.5820	0.126400	1.35000	1.8390	571.40	1.028
sigma_l_6	1.2120	0.067040	1.08700	1.3500	836.10	1.022
sigma_l_7	1.4010	0.094000	1.23100	1.5780	182.20	1.075
sigma_l_8	1.0300	0.051080	0.93230	1.1350	365.90	1.091
sigma_l_9	2.0260	0.538200	1.27700	3.3190	1482.00	1.058
sigma_l_10	1.5460	0.421100	0.95140	2.5480	141.70	1.094
sigma_l_11	1.5170	0.074660	1.37700	1.6740	1061.00	1.022
tau_b_1	2.3750	0.964300	0.93680	4.5700	216.80	1.061
tau_b_2	1.4070	0.079250	1.26000	1.5540	174.90	1.076
tau_b_3	1.9340	0.109500	1.72000	2.1720	2337.00	1.026
tau_b_4	1.8710	0.129600	1.63100	2.1500	336.20	1.038
tau_b_5	1.5300	0.107400	1.32500	1.7510	198.30	1.066
tau_b_6	1.7130	0.097650	1.52300	1.9080	2910.00	1.055
tau_b_7	1.1950	0.425200	0.53330	2.0510	87.69	1.153
tau_b_8	1.9050	0.940600	0.59490	4.1500	235.90	1.056
tau_b_9	4.0710	0.626100	2.73400	4.9420	318.30	1.045
tau_b_10	2.0290	0.234200	1.62900	2.5420	279.70	1.048
tau_b_11	0.8846	0.048240	0.78700	0.9812	2293.00	1.042
tau_b_12	0.7978	0.036960	0.73280	0.8674	167.70	1.078
tau_b_13	0.9327	0.045310	0.84600	1.0200	392.80	1.036
tau_b_14	0.8380	0.066460	0.71640	0.9776	529.90	1.029
tau_b_15	0.4906	0.157400	0.24910	0.8388	301.30	1.042
tau_b_16	0.6064	0.348600	0.16330	1.4430	385.40	1.036
tau_b_17	0.8853	0.171800	0.61570	1.2340	135.70	1.095

Table 17: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
tau_b_18	0.9693	0.116700	0.76270	1.2240	634.10	1.028
tau_b_19	0.8532	0.122700	0.62390	1.1190	2964.00	1.042
tau_g	3.4340	0.615100	2.47800	4.7320	141.40	1.096

Tables, statistics by group level

Table 18: Parameter estimates for consumption rate ($\bar{CR}_g$, g/min), rate of energy intake ($\bar{ER}_g$, kcal/min) and dive success rate (λ_g) for each group level g

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
CR_1	9.3740	0.686000	8.0920	10.8200	1606.00	1.037
CR_2	9.9030	0.406400	9.1370	10.6900	285.60	1.047
CR_3	9.1350	0.412000	8.3830	9.9260	129.90	1.097
CR_4	9.5480	0.450000	8.7000	10.4200	211.80	1.060
CR_5	9.6170	0.435200	8.8040	10.4400	211.00	1.063
CR_6	9.3170	0.437200	8.4400	10.1300	133.80	1.100
CR_7	9.0090	0.697300	7.6940	10.3700	142.30	1.088
CR_8	9.9660	0.833600	8.4950	11.7800	416.00	1.031
CR_9	10.3000	0.707600	8.9780	11.7500	252.30	1.050
CR_10	9.8040	0.577000	8.7130	10.9700	312.10	1.042
CR_11	9.3050	0.437300	8.2940	10.1700	172.90	1.085
CR_12	9.0880	0.381000	8.3670	9.8680	483.70	1.045
CR_13	8.8340	0.364700	8.1280	9.5830	264.40	1.053
CR_14	9.4240	0.415300	8.6640	10.2800	563.90	1.067
CR_15	9.0750	0.669500	7.8410	10.5300	979.50	1.062
CR_16	10.0600	0.785300	8.6080	11.7500	1827.00	1.025
CR_17	8.3210	0.579100	7.2400	9.5470	310.00	1.075
CR_18	8.8200	0.556900	7.7130	9.8980	177.90	1.071
CR_19	9.2250	0.576600	8.0870	10.3300	148.90	1.085
ER_1	7.5770	0.674900	6.3980	9.0820	659.10	1.028
ER_2	8.2410	0.367900	7.5460	8.9640	411.90	1.061
ER_3	7.0100	0.323300	6.4000	7.6400	250.40	1.050
ER_4	7.5430	0.378300	6.8330	8.2830	299.30	1.044
ER_5	7.5980	0.357900	6.9230	8.3020	294.20	1.046
ER_6	7.4350	0.371800	6.7030	8.1020	109.70	1.124
ER_7	7.1940	0.656000	6.0680	8.5840	206.50	1.060
ER_8	8.0490	0.861600	6.6080	10.0600	320.20	1.054
ER_9	8.4270	0.689100	7.1870	9.8670	294.20	1.043
ER_10	7.9210	0.512100	6.9800	8.9500	402.20	1.067
ER_11	7.3770	0.356100	6.5890	8.0900	185.20	1.093
ER_12	7.0940	0.302400	6.5180	7.7120	466.60	1.053
ER_13	6.8840	0.292800	6.3100	7.4690	227.60	1.057
ER_14	7.3730	0.337000	6.7430	8.0860	719.80	1.063
ER_15	7.1120	0.605400	6.0750	8.4620	578.30	1.039
ER_16	8.1580	0.817400	6.7430	9.9140	621.60	1.031

Table 18: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
ER_17	6.4860	0.474200	5.5930	7.4900	284.80	1.084
ER_18	6.7980	0.449200	5.9160	7.6770	190.10	1.067
ER_19	7.2950	0.474200	6.4130	8.2670	289.90	1.047
Lambda_1	0.8294	0.028010	0.7678	0.8784	550.20	1.039
Lambda_2	0.8421	0.016190	0.8049	0.8697	94.39	1.146
Lambda_3	0.8458	0.013090	0.8184	0.8704	1377.00	1.122
Lambda_4	0.8380	0.016790	0.8064	0.8693	90.96	1.146
Lambda_5	0.8299	0.015600	0.7978	0.8604	553.70	1.026
Lambda_6	0.8742	0.011360	0.8513	0.8969	304.60	1.042
Lambda_7	0.8622	0.022500	0.8151	0.9008	210.90	1.061
Lambda_8	0.8315	0.031830	0.7594	0.8865	264.20	1.053
Lambda_9	0.8203	0.025570	0.7653	0.8668	676.20	1.036
Lambda_10	0.8657	0.016410	0.8321	0.8953	196.40	1.065
Lambda_11	0.8577	0.013070	0.8331	0.8795	119.90	1.110
Lambda_12	0.8855	0.008899	0.8667	0.9013	358.80	1.038
Lambda_13	0.8838	0.009430	0.8639	0.9005	196.50	1.066
Lambda_14	0.8802	0.012100	0.8568	0.9025	176.70	1.072
Lambda_15	0.8584	0.020860	0.8117	0.8934	516.00	1.028
Lambda_16	0.8445	0.028790	0.7821	0.8944	311.20	1.041
Lambda_17	0.9183	0.012960	0.8894	0.9399	297.20	1.045
Lambda_18	0.8787	0.014200	0.8504	0.9057	168.40	1.073
Lambda_19	0.8747	0.016070	0.8386	0.9015	402.20	1.034

Table 19: Parameter estimates for mean size, $\bar{S}_{g,j}$, by group level g and by prey type j

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
S_1,1	37.27730	5.5396901	28.13612	50.06484	359.45104	1.039294
S_1,2	41.80563	5.9158148	31.31128	54.20471	1182.18650	1.115172
S_1,3	52.83584	7.2979166	40.31427	69.18340	1100.98005	1.020927
S_1,4	100.40396	16.7432363	74.02049	135.15480	121.10374	1.107240
S_1,5	84.11193	12.3270685	62.16918	111.21552	403.27461	1.031611
S_1,6	41.18830	4.2295239	33.28774	50.05316	1281.47498	1.060908
S_1,7	39.51587	5.3589207	29.80329	49.72534	135.00749	1.093858
S_1,8	23.46085	3.4444687	17.33634	30.07927	162.94653	1.083002
S_1,9	51.20677	8.7010045	37.48930	69.66333	120.84233	1.112103
S_1,10	73.34696	15.8190556	49.74629	114.86100	86.24420	1.158475
S_1,11	61.36726	9.1566583	44.83874	80.47908	393.19334	1.035466
S_2,1	34.30329	1.3917578	31.96878	36.98677	125.45203	1.103395
S_2,2	35.19595	1.7462698	31.98308	38.76686	314.35954	1.038592
S_2,3	50.25993	4.3886153	42.20182	58.91830	278.04926	1.047863
S_2,4	107.81609	8.4863459	93.17196	124.17515	115.36666	1.121581
S_2,5	87.21863	6.6844622	74.56100	101.49380	1326.88497	1.052992
S_2,6	44.50981	2.4812260	40.07693	49.72325	233.44346	1.055010
S_2,7	37.90881	3.0667630	32.11276	43.87714	361.45587	1.059999
S_2,8	18.72758	0.8953028	17.02368	20.62209	978.71785	1.067797

Table 19: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
S_2,9	42.83324	5.3431646	35.24038	54.11405	122.11885	1.104264
S_2,10	72.63320	13.2010835	50.23924	100.05610	181.41759	1.074518
S_2,11	66.61833	4.7196388	57.75916	76.17279	421.89644	1.050288
S_3,1	33.63011	1.4744945	30.49120	36.41142	96.97837	1.135607
S_3,2	33.53046	1.6876165	30.29258	36.90890	453.99151	1.069716
S_3,3	52.96481	4.6118350	43.75300	61.96702	90.68134	1.145203
S_3,4	96.04743	9.1173628	79.12401	114.94735	342.66457	1.038991
S_3,5	74.96988	7.1169512	62.40582	89.55378	226.74381	1.055917
S_3,6	44.10842	2.6395364	39.24941	49.56209	681.74039	1.033917
S_3,7	38.77207	3.5483573	31.73097	45.91514	106.82456	1.124020
S_3,8	21.32746	1.0530082	19.36256	23.46410	557.57990	1.026309
S_3,9	47.84694	4.0824376	40.95620	57.19745	640.52547	1.025512
S_3,10	71.40535	12.5961925	49.55155	98.76018	378.80770	1.058537
S_3,11	47.50787	3.3351408	41.27457	54.64301	843.89901	1.121886
S_4,1	35.70319	1.5359738	32.79977	38.67676	363.36088	1.036628
S_4,2	38.38104	2.3357266	33.78167	43.07742	553.31641	1.026119
S_4,3	48.08151	4.0562000	40.90019	56.97024	737.08985	1.024067
S_4,4	101.57683	15.6470934	74.82083	139.07000	1168.90131	1.025707
S_4,5	87.95427	7.8151634	73.73629	104.42885	427.96068	1.055355
S_4,6	48.73943	2.3259942	44.43614	53.32429	217.68028	1.058130
S_4,7	37.84614	3.7340780	31.08755	45.86683	1758.74208	1.044104
S_4,8	20.26372	1.3157886	17.93003	23.21605	405.46470	1.033496
S_4,9	51.61138	7.9998228	37.31518	69.93252	1283.91159	1.096450
S_4,10	75.58894	11.5396117	54.75655	99.48219	214.25411	1.059890
S_4,11	52.02629	3.8003979	45.40228	60.50812	344.48952	1.067062
S_5,1	36.57731	1.9611444	33.05781	40.24862	117.46585	1.109795
S_5,2	35.82460	2.3592306	31.52526	40.68042	687.35452	1.023473
S_5,3	52.16720	4.5048030	43.54745	61.59661	529.56258	1.028226
S_5,4	88.83179	9.5450775	71.47927	107.55135	118.48441	1.109560
S_5,5	81.39537	7.5060358	67.92453	97.15062	1444.66422	1.120654
S_5,6	47.02645	2.2513420	42.69176	51.54121	719.99348	1.064699
S_5,7	41.33763	3.9498278	34.04664	48.89558	195.33605	1.069600
S_5,8	20.32231	1.0351819	18.28612	22.36837	2737.10576	1.115988
S_5,9	56.60709	5.3704209	46.45563	66.86835	150.11853	1.086936
S_5,10	70.18716	13.5027727	48.09679	101.00652	178.98695	1.072830
S_5,11	55.27240	3.9131923	47.78213	62.97261	532.08229	1.026135
S_6,1	41.30639	1.5740509	38.35668	44.55174	2172.97650	1.032895
S_6,2	38.50117	2.7856159	33.78327	44.32572	189.84649	1.067205
S_6,3	66.08885	4.5371732	57.42874	76.19313	1030.62106	1.074657
S_6,4	122.18333	11.6287685	101.82783	146.83500	340.67670	1.041848
S_6,5	89.26515	6.2959288	76.63678	102.13948	1363.48463	1.030269
S_6,6	48.66330	2.0017987	44.83736	52.48237	369.89198	1.038469
S_6,7	42.50277	3.6318716	35.73201	50.20750	189.47496	1.063790
S_6,8	22.28831	0.9985067	20.41249	24.33638	1026.17653	1.024490
S_6,9	60.04090	5.9016615	47.02080	70.64727	79.86516	1.171539
S_6,10	70.70118	7.0764491	58.12595	86.60300	829.60928	1.058372

Table 19: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
S_6,11	63.00265	4.3197130	54.95878	72.20932	1320.71878	1.071120
S_7,1	39.03004	5.6970832	28.75781	50.92079	259.03502	1.051665
S_7,2	42.04564	6.2577459	30.82605	54.96460	358.69688	1.037377
S_7,3	54.86089	7.6463246	40.80634	69.41813	186.50620	1.070704
S_7,4	103.04469	16.2146938	75.21336	137.78422	220.93863	1.060124
S_7,5	83.10273	11.0593953	62.15801	105.43363	508.67808	1.030165
S_7,6	47.46294	6.5046359	35.60240	61.64691	1943.65173	1.056661
S_7,7	44.65250	5.8601812	34.53060	57.32762	408.12793	1.040863
S_7,8	22.45756	2.5761058	17.78870	28.24276	286.89298	1.132808
S_7,9	52.16842	8.7220678	38.04100	70.54480	275.39754	1.053712
S_7,10	72.14006	13.4958194	50.22010	100.87377	169.89315	1.076353
S_7,11	61.50075	9.0964919	46.54171	81.45530	474.47184	1.038728
S_8,1	40.86344	5.9104936	29.97311	53.28436	386.84300	1.033944
S_8,2	42.82670	5.9683437	32.13260	55.37826	722.66892	1.028868
S_8,3	54.72476	8.2964003	41.39670	72.69098	246.66416	1.059212
S_8,4	103.61389	15.5842994	74.87241	136.07300	324.17939	1.062644
S_8,5	84.54971	12.8896691	61.54767	111.52213	222.75702	1.054696
S_8,6	46.75580	6.7800563	34.90306	61.98718	1105.48648	1.118836
S_8,7	40.07438	6.0902255	27.37034	52.66719	204.48084	1.062770
S_8,8	23.03813	3.4178182	16.82312	30.26712	182.75881	1.068669
S_8,9	52.88524	8.9882851	36.91183	70.24505	158.83001	1.083375
S_8,10	72.23505	13.6016406	50.03308	99.80305	171.36324	1.079134
S_8,11	63.41166	10.5292175	44.76915	86.24135	99.11840	1.130757
S_9,1	37.21168	3.0790028	31.41327	43.11080	382.29745	1.039136
S_9,2	42.05618	6.2890374	30.58871	55.82279	245.42010	1.052602
S_9,3	62.67305	9.1981350	44.93805	82.73192	174.21305	1.073348
S_9,4	102.22445	15.3524140	75.15489	135.37017	788.30313	1.040347
S_9,5	84.66779	12.8239159	62.83735	112.51505	240.65643	1.052408
S_9,6	43.37305	4.9719789	34.36497	54.36605	1666.80650	1.118731
S_9,7	40.35411	5.9528361	30.26255	52.29633	231.77772	1.055988
S_9,8	23.42418	3.4069758	17.43250	30.37201	302.71091	1.043144
S_9,9	51.69502	8.4673899	36.58384	72.21579	260.13380	1.049915
S_9,10	72.32329	12.9702723	50.50332	100.03930	229.47668	1.060785
S_9,11	67.01220	8.8210415	51.61865	85.34597	251.84668	1.051215
S_10,1	42.43943	1.7401064	39.30960	45.95527	184.15029	1.069315
S_10,2	47.70310	6.4798527	36.18332	60.99351	117.65210	1.113802
S_10,3	50.78524	6.3110977	39.02194	64.09036	674.35164	1.023635
S_10,4	93.00253	10.6078091	74.79277	115.95923	380.97167	1.076795
S_10,5	83.70782	12.9163896	61.41340	110.57540	193.37934	1.065812
S_10,6	60.90830	5.1795161	50.94114	71.24634	1020.88212	1.033358
S_10,7	38.46537	4.9661795	30.44273	49.43822	190.55350	1.067397
S_10,8	21.01432	1.6362410	18.11528	24.39904	544.38516	1.031267
S_10,9	51.17217	9.7815690	36.09300	75.44350	104.89832	1.127055
S_10,10	71.42438	12.4724866	50.15273	99.45972	485.26549	1.044027
S_10,11	62.55313	6.6867442	50.03130	76.45791	704.25650	1.036002
S_11,1	43.65476	1.6039987	40.55468	46.97590	2989.60133	1.061093

Table 19: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
S_11,2	41.61986	2.1769367	37.52702	46.75389	125.90471	1.099409
S_11,3	55.63367	5.1035103	46.41387	66.59391	625.92041	1.030236
S_11,4	100.61464	12.1489582	78.91709	123.71565	133.13508	1.094936
S_11,5	88.95680	9.7197473	71.73114	107.55800	155.10781	1.083281
S_11,6	54.73416	2.8244059	49.90637	60.13960	111.59665	1.115080
S_11,7	42.72922	3.4063215	36.48010	50.23800	639.24526	1.074877
S_11,8	24.33745	1.1162412	22.17178	26.61330	848.55421	1.128733
S_11,9	51.18471	9.2850904	36.34170	72.48576	144.94278	1.090229
S_11,10	69.79118	10.6128820	50.63997	92.88706	316.03104	1.041981
S_11,11	71.32108	5.1898107	62.34716	81.91701	231.32468	1.055895
S_12,1	41.50264	1.6483792	38.27446	44.67221	303.76799	1.045928
S_12,2	45.82096	2.2486767	41.52293	50.45061	382.95660	1.038538
S_12,3	55.54732	4.7893407	46.82400	66.21491	188.49530	1.065243
S_12,4	106.42874	15.0808043	81.53590	138.53547	108.97838	1.117247
S_12,5	87.65299	9.6112596	70.94370	107.94105	212.29020	1.109248
S_12,6	49.65867	2.1755995	45.67431	54.11409	391.12577	1.037184
S_12,7	44.02714	3.1643007	38.07468	50.08637	358.41622	1.051675
S_12,8	24.74628	1.1453815	22.58998	27.06451	720.34814	1.080883
S_12,9	52.01330	8.3027291	37.77280	69.54528	493.79532	1.032668
S_12,10	71.42626	10.7821797	52.51162	94.71620	557.65337	1.131188
S_12,11	70.90125	4.9000001	62.07926	81.12513	441.99074	1.039698
S_13,1	39.59372	1.5125849	36.71258	42.60917	457.76574	1.032068
S_13,2	49.39042	2.5374213	44.72910	54.59320	120.96994	1.109582
S_13,3	52.83627	3.5354268	46.27401	60.24474	2537.43286	1.055383
S_13,4	99.03694	11.5905658	78.77657	120.42472	141.51609	1.090015
S_13,5	65.74428	6.1828063	55.16747	79.28153	622.20942	1.031063
S_13,6	45.75896	2.3101312	41.40188	50.43346	1485.41201	1.034727
S_13,7	39.04019	3.4177802	32.77859	46.20933	761.23466	1.035420
S_13,8	24.87307	1.2232371	22.76362	27.33561	214.95516	1.066054
S_13,9	52.02717	8.2431207	37.31163	69.78435	581.16226	1.030098
S_13,10	72.54550	9.6270488	56.22802	93.48307	216.57206	1.060735
S_13,11	58.72756	4.3484926	51.07698	68.26518	834.65417	1.162841
S_14,1	40.81062	1.6040960	37.85119	44.08250	283.20645	1.044851
S_14,2	47.83229	2.2723719	43.59049	52.41463	688.95097	1.029018
S_14,3	54.71650	4.5143253	46.78545	64.58859	257.74716	1.050419
S_14,4	107.15519	14.6697167	82.51634	139.41400	97.49657	1.132988
S_14,5	86.97406	10.5544916	66.67498	108.80577	1057.62331	1.077344
S_14,6	42.53073	3.6419546	36.01727	49.25340	101.75548	1.129134
S_14,7	35.04795	4.1324025	28.21240	43.76985	134.28730	1.095244
S_14,8	27.74103	1.5258445	25.07937	30.89890	193.09275	1.067872
S_14,9	51.12413	8.7285986	36.74791	69.97361	234.62372	1.054703
S_14,10	72.27066	13.6560657	48.05104	99.06363	115.76986	1.113265
S_14,11	64.80175	6.1804687	53.67798	77.72211	1209.20749	1.033771
S_15,1	43.02924	2.3672153	38.45459	47.69698	343.33439	1.040821
S_15,2	43.70882	5.1338913	34.48710	53.75099	239.41960	1.054033
S_15,3	58.64358	8.0968577	45.52893	76.89947	351.41109	1.037793
S_15,4	103.67729	16.9648728	74.07614	141.12062	185.63788	1.069276

Table 19: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
S_15,5	81.64879	12.8297079	61.40572	110.36713	169.15766	1.073405
S_15,6	47.22055	7.2735666	35.19915	66.01409	251.86183	1.059977
S_15,7	40.01988	5.8668065	30.17823	52.87127	331.80374	1.040171
S_15,8	23.43323	3.4205126	17.40803	30.58835	227.71662	1.058042
S_15,9	50.88130	8.5572415	36.98431	69.73767	334.91436	1.043287
S_15,10	72.76687	13.1296151	49.94559	100.35917	220.55339	1.064301
S_15,11	61.17313	9.2113459	44.91159	82.47530	1082.24023	1.026909
S_16,1	45.44441	4.3897325	37.54927	53.80954	159.33036	1.080496
S_16,2	42.45465	6.1334521	31.43635	55.82684	426.69536	1.032026
S_16,3	58.91666	6.7239093	46.70000	73.40997	467.10318	1.027857
S_16,4	99.34254	12.9192268	76.06828	128.72123	1287.05684	1.041682
S_16,5	83.02097	12.5255204	61.15995	109.75992	254.90650	1.050525
S_16,6	48.40433	7.3441224	35.42786	62.71308	168.69946	1.076169
S_16,7	40.10459	5.8045977	29.81135	52.74993	795.04500	1.022442
S_16,8	23.27031	3.3454419	17.29827	30.46814	1319.42069	1.053741
S_16,9	51.71885	9.0169738	36.36302	73.30700	188.45596	1.066353
S_16,10	71.45295	12.3732688	50.93263	99.29087	421.71508	1.033242
S_16,11	64.36113	10.0846711	48.01713	86.81445	92.95166	1.146984
S_17,1	38.76055	1.4791728	36.00608	41.90195	1222.27953	1.035684
S_17,2	38.46066	1.9208214	34.70472	42.40142	1763.64019	1.030257
S_17,3	54.02932	8.5074856	39.44530	71.80626	113.60387	1.115262
S_17,4	103.21593	16.0986137	75.03347	137.91213	236.26588	1.059950
S_17,5	82.29145	12.4273312	62.09394	109.17110	245.57317	1.050635
S_17,6	44.77622	5.6914853	34.80662	55.51501	153.86515	1.084406
S_17,7	36.97359	4.7968413	28.51446	47.26117	165.64150	1.073601
S_17,8	23.50724	3.4398281	17.33186	30.49353	206.66198	1.062677
S_17,9	50.63078	9.0113105	37.08987	70.70173	122.47077	1.106184
S_17,10	72.52703	13.0498035	49.47868	99.39149	151.55781	1.084005
S_17,11	60.41186	8.9264593	44.64748	78.73220	468.21497	1.029488
S_18,1	46.99937	1.7920893	43.64166	50.70298	1257.00464	1.148720
S_18,2	52.22051	3.0049877	47.09175	59.83290	90.75394	1.176301
S_18,3	57.20422	7.3146634	41.51678	74.25730	116.66108	1.111766
S_18,4	102.93520	16.0201207	74.10097	137.32900	260.71549	1.051368
S_18,5	82.78817	12.6905826	61.02089	108.96100	218.33664	1.059447
S_18,6	47.17668	6.7317476	34.81649	61.34488	1431.02943	1.066683
S_18,7	40.76916	4.9087439	31.98252	50.95653	542.22653	1.059950
S_18,8	23.73472	2.4838248	19.57678	28.90354	152.60418	1.082454
S_18,9	51.32461	8.8370631	37.16097	71.30683	254.99791	1.053865
S_18,10	71.47073	13.1542444	49.52226	99.06020	171.56734	1.074933
S_18,11	60.91281	8.9721624	45.24974	79.68079	456.10956	1.038997
S_19,1	48.23993	2.2596730	43.75260	52.88133	961.40504	1.021916
S_19,2	55.36244	2.6707251	49.87220	60.91533	1641.96877	1.169653
S_19,3	61.35752	8.1523918	47.63213	79.01826	292.87004	1.044579
S_19,4	102.09244	15.5725349	74.17657	137.50660	1294.73844	1.036835
S_19,5	81.75131	13.1646307	59.34490	110.62355	313.15249	1.041164
S_19,6	47.12334	6.5275698	35.25966	60.72604	657.58417	1.023684
S_19,7	41.08805	4.9474980	32.31638	52.04356	324.74982	1.038638

Table 19: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
S_19,8	28.99977	2.5972524	24.18032	34.12142	235.95552	1.055199
S_19,9	50.97290	8.6361665	37.31315	70.80549	145.15570	1.090991
S_19,10	71.98411	12.8472463	50.04000	99.62940	294.69683	1.043176
S_19,11	60.92272	9.3861832	44.74053	80.82080	496.61038	1.092411

Table 20: Parameter estimates for mean handling time, $\bar{H}_{g,j}$, by group level g and by prey type j

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
H_1,1	35.48760	5.320354	25.98699	46.50089	284.38088	1.044409
H_1,2	24.51692	3.701060	18.24092	32.69214	656.90171	1.023191
H_1,3	41.43784	6.038183	30.56461	54.22454	705.03538	1.023670
H_1,4	117.80538	22.330902	79.61504	168.12200	680.54658	1.069279
H_1,5	119.26669	21.484775	82.80326	167.37185	271.01499	1.066186
H_1,6	62.38207	9.331785	46.39253	83.28299	364.35805	1.105769
H_1,7	46.23677	8.042563	32.38341	63.52441	267.11948	1.047106
H_1,8	16.85102	2.623150	12.45001	22.96635	1516.36461	1.087858
H_1,9	78.39012	14.235031	51.44363	108.74945	191.08462	1.080746
H_1,10	123.14059	26.543129	79.76775	185.13272	87.02091	1.155475
H_1,11	29.85399	4.475321	21.97450	39.71428	2136.55401	1.034446
H_2,1	31.83434	2.228936	27.65824	36.16912	364.50334	1.039096
H_2,2	22.05144	1.669286	18.89605	25.41651	584.45146	1.028192
H_2,3	39.81086	4.741513	31.35535	50.03457	254.91960	1.052735
H_2,4	127.58947	16.777883	99.16370	163.98795	292.07266	1.048271
H_2,5	124.88498	15.377638	97.67057	156.64815	223.65536	1.057941
H_2,6	64.33562	6.502364	52.29951	77.54920	712.75545	1.022858
H_2,7	48.07709	6.953581	36.51047	63.29034	379.71899	1.034630
H_2,8	18.06289	1.541904	15.42525	21.31593	233.61331	1.052880
H_2,9	72.39935	8.405150	57.07324	89.97449	219.46361	1.058716
H_2,10	119.83660	21.999918	81.54748	163.44102	139.80559	1.090765
H_2,11	31.80552	2.471858	27.15268	36.89363	416.91611	1.041639
H_3,1	38.41140	3.190960	33.04368	44.98245	188.39789	1.065344
H_3,2	24.70980	1.917778	21.04668	28.74413	560.21690	1.025370
H_3,3	36.72503	4.800827	28.61942	46.86225	175.10227	1.073106
H_3,4	120.35293	20.376145	86.51770	165.56903	415.78289	1.037172
H_3,5	117.09316	15.662310	90.32070	150.76632	202.04210	1.063713
H_3,6	84.35612	9.448263	67.42612	103.69827	437.53792	1.061950
H_3,7	45.12280	7.083670	32.90389	60.51402	289.50561	1.045320
H_3,8	18.59965	2.007766	14.55302	22.77676	145.69451	1.096395
H_3,9	94.27517	11.589640	74.66035	118.87805	155.54664	1.085844
H_3,10	127.16873	23.073452	88.14292	176.73532	241.97661	1.052444
H_3,11	32.18555	2.465948	27.58303	37.39851	2429.55023	1.054874
H_4,1	32.17434	2.594787	27.39930	37.71147	583.07926	1.075106
H_4,2	27.07911	2.448521	22.87288	32.21938	187.37001	1.066496
H_4,3	47.22032	5.540018	36.94190	58.23268	208.83603	1.061298
H_4,4	116.50707	22.201839	79.89816	165.95385	399.93650	1.035413

Table 20: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
H_4,5	130.05820	19.914243	94.83207	174.36405	108.74793	1.118917
H_4,6	64.77278	6.869279	52.81821	79.77881	374.98083	1.037712
H_4,7	41.59169	6.998808	29.43018	57.19369	712.04613	1.023736
H_4,8	17.97352	1.920111	14.56198	22.08861	475.35408	1.029385
H_4,9	89.61503	14.041088	65.21576	120.58657	210.65639	1.064453
H_4,10	117.21937	19.568132	83.65458	159.69870	325.82898	1.043393
H_4,11	33.05383	2.999128	27.47473	39.21023	291.11413	1.046055
H_5,1	35.50245	3.585345	28.89238	43.80402	296.37323	1.071909
H_5,2	23.67101	2.200289	19.85797	28.33620	258.19420	1.051203
H_5,3	39.78631	5.572613	29.98132	51.64175	383.68033	1.034898
H_5,4	116.00353	18.521328	85.23370	157.23290	1052.81213	1.028328
H_5,5	113.72133	13.847710	89.72129	144.63715	301.18505	1.045958
H_5,6	68.31203	6.851706	54.86228	82.11060	182.55294	1.068384
H_5,7	44.93792	6.545239	32.87496	58.19629	304.53682	1.042039
H_5,8	15.60245	1.556191	12.95349	18.97283	161.26223	1.078567
H_5,9	87.84714	12.720028	65.34197	115.52733	263.17313	1.069233
H_5,10	125.75317	23.790416	86.64553	183.66823	87.89966	1.153537
H_5,11	28.80781	2.671812	23.77010	34.29646	311.85284	1.041429
H_6,1	33.71411	2.664260	29.11124	39.51128	771.58660	1.030202
H_6,2	22.27707	2.124366	18.37688	26.94183	405.32415	1.086831
H_6,3	43.73611	4.302013	35.96536	52.71131	286.62911	1.049627
H_6,4	130.22446	20.104310	96.81664	174.79235	431.41708	1.032455
H_6,5	115.40590	13.605114	92.27446	144.70702	484.87017	1.032892
H_6,6	75.03412	7.852980	61.28180	90.59581	166.00554	1.076477
H_6,7	46.92084	6.930262	34.82088	62.80385	1118.06655	1.051557
H_6,8	17.55069	1.409568	14.95984	20.61256	1914.76808	1.061271
H_6,9	83.74521	10.498095	65.01335	106.29918	595.75533	1.050402
H_6,10	131.11037	18.505124	98.65556	172.49167	795.64701	1.022023
H_6,11	25.96348	2.483430	21.41832	31.27502	437.03139	1.065369
H_7,1	35.33755	5.165778	25.89546	46.29399	617.79008	1.022935
H_7,2	24.93555	3.901216	18.08047	33.79272	152.99504	1.082010
H_7,3	39.70196	6.235200	28.65740	53.03802	150.18321	1.083634
H_7,4	117.11342	23.957106	79.10150	173.46508	787.29226	1.057736
H_7,5	116.99336	19.926805	85.20565	160.47153	169.93165	1.075793
H_7,6	66.02142	10.887231	47.31236	90.72181	1350.39679	1.022196
H_7,7	43.73545	7.265024	30.95506	60.04486	1126.36964	1.064191
H_7,8	15.32796	2.234688	11.36136	20.14261	299.17240	1.061075
H_7,9	87.61571	14.790553	61.64068	121.18982	1436.87764	1.050880
H_7,10	123.33190	25.402767	81.51957	177.07442	118.89819	1.107901
H_7,11	29.92050	4.522698	22.01083	39.85974	819.86309	1.076980
H_8,1	35.44518	5.461180	25.70337	46.60749	483.65249	1.028188
H_8,2	24.13628	3.860719	17.96501	32.72668	178.92090	1.071356
H_8,3	40.76209	6.413059	29.82181	55.36606	666.50269	1.024854
H_8,4	117.28127	22.629993	79.54321	166.23115	471.05999	1.033479
H_8,5	118.09068	21.535318	80.22258	167.23968	313.38567	1.048073
H_8,6	66.09189	11.066799	47.30489	90.75731	295.60565	1.044243
H_8,7	42.99122	7.686630	29.73310	60.78988	1986.80537	1.038395

Table 20: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
H_8,8	16.79963	2.778369	12.04448	22.53392	122.78981	1.106321
H_8,9	85.29526	15.237426	60.05204	119.87575	375.31626	1.035349
H_8,10	122.58210	23.226771	82.27133	169.71257	174.90390	1.070838
H_8,11	29.74297	4.632755	21.70873	39.95709	424.04951	1.031072
H_9,1	34.05775	4.226552	26.42492	43.52141	1192.06415	1.066823
H_9,2	24.57963	3.722728	17.97501	32.43789	416.63086	1.032151
H_9,3	43.73516	6.778549	32.12112	58.97743	296.62640	1.044150
H_9,4	118.59189	22.491436	80.36876	170.33202	1303.84102	1.040008
H_9,5	117.53180	21.115996	82.22263	164.13037	374.82393	1.039392
H_9,6	65.53127	11.646290	46.86738	93.37720	230.55974	1.053150
H_9,7	42.59828	7.507813	29.54225	59.52665	757.73705	1.030410
H_9,8	16.90180	2.802726	12.18598	22.78040	230.84773	1.057463
H_9,9	83.05192	13.920170	58.36367	113.36187	1263.36212	1.051377
H_9,10	119.97897	22.598051	79.63496	168.28907	309.30429	1.042419
H_9,11	31.26766	4.600071	23.24171	40.97966	405.69559	1.032626
H_10,1	31.97438	2.326775	27.64245	36.51247	251.09608	1.050727
H_10,2	24.41062	3.862786	17.74595	32.95071	441.85264	1.083164
H_10,3	47.50728	7.368784	36.05969	64.32425	449.90097	1.029081
H_10,4	107.94347	20.490720	73.74991	156.06008	456.54297	1.035197
H_10,5	117.09758	20.696854	82.38322	164.07070	533.86094	1.030002
H_10,6	58.76220	8.841662	43.53699	76.17292	131.49162	1.095865
H_10,7	43.55552	7.340186	31.24305	59.78691	719.65340	1.048484
H_10,8	17.83852	2.103593	14.14180	22.36887	253.95140	1.053332
H_10,9	85.09143	14.984311	61.74925	117.79013	179.07207	1.071896
H_10,10	137.61046	25.590119	94.41447	189.25903	222.03686	1.058304
H_10,11	32.75242	4.377580	24.93160	42.08081	409.64193	1.077266
H_11,1	37.29402	2.380831	33.05652	42.28555	299.20328	1.042346
H_11,2	22.61848	1.603352	19.52521	26.05220	2848.30140	1.021006
H_11,3	36.37445	4.380478	28.50791	45.91660	713.43316	1.030427
H_11,4	114.52330	20.408044	77.93628	159.15813	1074.01718	1.020751
H_11,5	106.61582	14.273083	81.58601	136.56450	249.79562	1.056876
H_11,6	58.44243	5.322169	48.46938	69.70929	936.71622	1.039613
H_11,7	27.42664	4.927724	19.00144	37.85374	217.60919	1.065205
H_11,8	14.04013	1.097349	11.90485	16.25533	2143.52352	1.061687
H_11,9	91.49686	16.527504	58.37201	128.07860	154.73720	1.081797
H_11,10	104.13291	18.739386	71.53732	142.45670	126.72715	1.101862
H_11,11	27.27743	2.144196	23.31337	31.65402	359.91921	1.037505
H_12,1	34.59277	2.221593	30.43218	39.05977	260.19466	1.050477
H_12,2	20.88579	1.519187	18.00136	23.80013	252.23003	1.053350
H_12,3	42.44844	4.821021	34.20799	53.11439	662.25581	1.022031
H_12,4	125.12993	22.073426	86.88651	174.99450	928.12226	1.038369
H_12,5	118.12370	17.376922	87.83144	156.55370	509.14899	1.029588
H_12,6	58.57175	5.846211	47.36357	70.84352	153.79825	1.083763
H_12,7	45.92036	5.980647	35.51230	58.69389	374.45915	1.038784
H_12,8	14.50326	1.176106	12.37660	17.04775	2054.61666	1.058712
H_12,9	98.06092	15.423523	72.37112	132.16255	277.89327	1.047435

Table 20: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
H_12,10	118.22572	22.386081	81.47563	169.22100	104.11480	1.127831
H_12,11	28.33797	2.252911	24.26900	33.30082	1134.93677	1.062944
H_13,1	35.73126	2.174885	31.44360	40.10951	767.92399	1.023063
H_13,2	24.83155	1.832737	21.47329	28.29130	247.41193	1.052932
H_13,3	43.23385	4.707889	34.51633	52.69913	306.74844	1.041843
H_13,4	109.76309	17.734669	78.91475	149.95442	893.04869	1.020711
H_13,5	109.00710	15.948845	76.65412	142.25260	141.18472	1.091098
H_13,6	68.55132	7.381646	55.17596	83.11074	179.45951	1.069089
H_13,7	45.51697	7.093420	33.61173	61.19841	514.01550	1.060031
H_13,8	19.20032	1.546403	16.38285	22.48967	490.11387	1.030532
H_13,9	80.54802	13.088952	57.52893	108.58330	512.69685	1.030361
H_13,10	119.21150	19.724654	84.10537	160.38930	278.87731	1.046514
H_13,11	27.07475	2.154621	23.04511	31.62733	2886.01652	1.043517
H_14,1	33.70542	2.480364	29.22612	38.53667	284.38631	1.048002
H_14,2	21.10820	1.482011	18.28171	24.03251	495.37821	1.026922
H_14,3	36.71108	4.410346	28.96329	46.09622	483.08797	1.033311
H_14,4	110.89980	19.990746	75.94638	154.68280	1295.92497	1.039154
H_14,5	122.56749	17.371655	92.51785	160.57677	1134.28817	1.056326
H_14,6	67.51580	8.166572	52.70410	84.29748	365.39821	1.037220
H_14,7	41.67342	6.768813	30.11398	57.49089	1278.47053	1.067070
H_14,8	16.70416	1.573678	13.88088	20.02603	547.58551	1.063660
H_14,9	85.57248	14.770819	59.95981	119.14940	272.41244	1.081243
H_14,10	126.62508	22.851890	84.13642	173.24420	146.86920	1.087994
H_14,11	30.83871	3.872873	23.83215	38.49150	157.41294	1.079389
H_15,1	39.43267	4.131790	32.38111	48.31283	300.76636	1.042789
H_15,2	26.37281	3.827674	19.53909	34.99839	1656.51099	1.020709
H_15,3	38.46242	5.719495	28.53153	50.30847	676.50533	1.024377
H_15,4	117.53119	22.150049	79.09647	167.26913	601.42299	1.027470
H_15,5	119.69032	22.877744	82.40827	165.59332	149.28664	1.087145
H_15,6	67.09698	11.871501	47.48704	91.14579	129.66280	1.096680
H_15,7	43.00079	7.845201	29.05660	60.02119	614.55381	1.064747
H_15,8	16.78156	2.526200	12.36746	22.38491	2692.65894	1.066356
H_15,9	84.69497	16.725797	54.46162	121.63308	145.08232	1.086292
H_15,10	121.81925	23.517514	79.03566	170.09855	193.12136	1.065841
H_15,11	30.23549	4.868529	21.87821	40.16269	169.12993	1.073521
H_16,1	33.46871	4.427893	25.76067	43.35471	187.29557	1.068469
H_16,2	24.12655	3.937895	17.36729	32.52226	223.55492	1.101479
H_16,3	38.86431	5.993757	28.99027	51.31320	110.67821	1.119975
H_16,4	118.25765	23.200653	79.86109	170.56602	1036.61724	1.023867
H_16,5	117.90599	21.751421	79.25486	164.80437	206.24811	1.061877
H_16,6	67.05409	11.245470	47.45204	90.79475	268.02254	1.047282
H_16,7	43.87381	7.799234	30.00569	59.92881	236.77543	1.053839
H_16,8	16.73936	2.698947	12.21166	22.76237	465.22568	1.103190
H_16,9	85.02325	15.138360	59.77945	118.66322	375.74534	1.034529
H_16,10	123.39309	24.906141	81.95535	174.00380	106.58253	1.122873
H_16,11	29.73800	4.232847	22.27428	39.04466	1105.64158	1.086982

Table 20: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
H_17,1	36.04617	3.103925	30.32055	42.38045	410.20069	1.032564
H_17,2	28.52790	2.830632	23.58215	34.48931	235.19220	1.054703
H_17,3	40.91913	6.759525	29.66311	56.02860	394.35898	1.068497
H_17,4	117.71700	22.041694	78.98390	169.12783	894.12506	1.031067
H_17,5	118.57162	21.166880	82.10661	165.60833	474.36936	1.031876
H_17,6	69.34374	11.425369	49.77790	92.44878	161.93910	1.079091
H_17,7	46.67044	7.721665	32.90443	63.79167	904.37698	1.021187
H_17,8	16.97840	2.693428	12.05149	22.90373	502.25515	1.075813
H_17,9	86.15103	14.992716	59.97935	118.54807	368.75309	1.065043
H_17,10	123.21316	23.510427	82.55491	171.69907	168.68209	1.077387
H_17,11	30.14014	4.610404	21.89408	40.22175	788.72414	1.020683
H_18,1	35.51357	2.238737	31.29147	40.03365	432.85481	1.031707
H_18,2	28.49082	2.381821	24.25867	33.59481	369.14435	1.036909
H_18,3	40.69471	6.250161	30.06778	54.30933	439.49672	1.050756
H_18,4	116.84861	22.745219	80.52213	169.28102	643.79476	1.023116
H_18,5	116.58629	21.250968	82.56767	164.70413	290.36000	1.042115
H_18,6	65.62489	10.544813	47.66957	88.60439	1661.23397	1.020498
H_18,7	42.33409	7.291821	30.58068	59.19503	766.24126	1.021280
H_18,8	16.11105	2.165897	12.32544	20.88994	754.24527	1.070906
H_18,9	86.33005	15.486535	60.11592	121.23822	488.05429	1.051372
H_18,10	125.30631	23.984776	85.24152	176.01477	129.57025	1.099166
H_18,11	30.22704	4.701046	21.88808	40.68128	709.36763	1.121420
H_19,1	31.75531	3.431087	25.77505	38.58711	129.90254	1.099401
H_19,2	21.91249	2.253841	17.69488	26.49573	576.86647	1.025652
H_19,3	42.63271	6.324411	31.10435	56.69415	2139.25685	1.059077
H_19,4	118.16882	22.759569	80.96855	169.41935	1562.83979	1.040691
H_19,5	117.00272	20.781495	82.71532	164.04360	717.11107	1.057756
H_19,6	64.78862	10.730892	46.91160	89.26476	451.73771	1.028431
H_19,7	41.41197	7.021642	29.45705	57.24151	1191.55449	1.062215
H_19,8	13.94846	1.814402	10.71408	17.89772	342.93473	1.035848
H_19,9	85.42811	16.021136	54.77595	120.53102	182.20197	1.069670
H_19,10	122.17210	24.339642	80.98538	171.05220	110.03415	1.121981
H_19,11	29.87669	4.463995	22.18481	39.54681	2269.24923	1.059996

Table 21: Parameter estimates for mean consumption rate, $\bar{cr}_{g,j}$, by group level g and by prey type j

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
cr_1,1	9.346330	1.2672441	7.070333	11.972195	392.2661	1.033635
cr_1,2	7.534319	1.0488634	5.821423	9.658114	132.7114	1.095240
cr_1,3	11.248784	1.4340171	8.630800	14.327520	375.7574	1.035071
cr_1,4	19.910912	2.5472186	14.812700	24.689570	582.8590	1.033662
cr_1,5	13.382871	1.7648781	10.063752	17.053278	1302.1680	1.061339
cr_1,6	10.016212	1.3619216	7.571731	12.807440	216.4641	1.058261
cr_1,7	5.795088	0.8408403	4.330484	7.627684	431.2829	1.031414
cr_1,8	4.596899	0.6233785	3.456150	5.901951	207.3416	1.060420
cr_1,9	12.206432	2.0401124	8.877175	16.984672	179.7400	1.072893

Table 21: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
cr_1,10	26.108137	0.7633852	24.548185	27.594070	283.7561	1.047960
cr_1,11	7.734907	0.9173442	6.003108	9.621184	537.4080	1.027233
cr_2,1	9.814894	1.0594757	7.931988	12.079845	1154.9921	1.042832
cr_2,2	8.695063	0.7991600	7.275682	10.345133	519.9996	1.026088
cr_2,3	12.192600	1.3771011	9.593982	14.866980	253.3809	1.056051
cr_2,4	19.189223	2.1496686	14.972345	23.371582	276.5497	1.052634
cr_2,5	12.819593	1.4107193	10.248440	15.781947	825.9792	1.043152
cr_2,6	9.999819	1.2395317	7.737348	12.517447	202.1785	1.061417
cr_2,7	6.014071	0.8288226	4.579574	7.728840	188.5840	1.067766
cr_2,8	4.450932	0.4366482	3.677735	5.368967	463.7731	1.032038
cr_2,9	13.500295	1.6732998	10.508078	17.054460	537.9496	1.033904
cr_2,10	26.312583	0.7237650	24.859500	27.698820	655.7944	1.023827
cr_2,11	7.721235	0.7111653	6.398772	9.186309	874.8560	1.024233
cr_3,1	8.956837	1.0906965	6.980878	11.102382	160.6351	1.079616
cr_3,2	7.565641	0.7235426	6.306624	9.125419	603.1050	1.024334
cr_3,3	12.682116	1.5601856	9.903885	15.921930	129.4540	1.106781
cr_3,4	19.234227	2.3227758	14.746090	23.878310	503.9168	1.034383
cr_3,5	13.784536	1.5780098	10.770765	16.919642	548.0606	1.027116
cr_3,6	8.218869	1.0460123	6.377507	10.540885	461.7760	1.029108
cr_3,7	6.003081	0.8238946	4.503651	7.693300	374.9695	1.035951
cr_3,8	3.977205	0.4402686	3.175706	4.916953	205.4409	1.066070
cr_3,9	11.679782	1.5460573	9.099725	14.921083	224.1157	1.064697
cr_3,10	26.002076	0.7714154	24.389865	27.462837	332.6757	1.040666
cr_3,11	7.665221	0.7723906	6.306437	9.239526	130.1174	1.100664
cr_4,1	9.884811	1.1354973	7.767230	12.083137	238.2648	1.057783
cr_4,2	7.000929	0.6599656	5.728010	8.364856	1933.9371	1.036337
cr_4,3	10.847865	1.3867851	8.060899	13.513003	144.9452	1.093492
cr_4,4	19.925111	2.5596427	14.781197	24.920037	495.2490	1.033447
cr_4,5	12.697477	1.5045847	9.878065	15.853457	1371.1093	1.056112
cr_4,6	10.088461	1.2017173	7.889897	12.606072	238.9521	1.051470
cr_4,7	6.298622	0.9264966	4.599647	8.331630	262.4921	1.067182
cr_4,8	4.174909	0.4728072	3.206537	5.169956	239.3794	1.086286
cr_4,9	11.798171	1.8694929	8.871644	15.996325	99.3797	1.135022
cr_4,10	25.980764	0.7516087	24.451493	27.412170	310.5089	1.045198
cr_4,11	7.272332	0.7355613	5.865766	8.680275	318.7546	1.042137
cr_5,1	9.178942	1.1505654	7.160403	11.484215	244.3283	1.053561
cr_5,2	7.861892	0.7962816	6.418664	9.501903	607.4383	1.037378
cr_5,3	12.700673	1.6153631	9.683745	15.721008	142.6715	1.093200
cr_5,4	19.556045	2.3254369	14.974295	24.077347	576.5298	1.035060
cr_5,5	13.035642	1.4977659	10.135995	16.111867	517.8476	1.029887
cr_5,6	9.728165	1.1194900	7.679039	12.044445	519.9761	1.048104
cr_5,7	6.055343	0.8345979	4.610359	7.843090	415.4533	1.058030
cr_5,8	4.816783	0.4856256	3.910050	5.860343	2488.6212	1.048960
cr_5,9	11.592042	1.6985613	8.759239	15.317765	255.3785	1.055957
cr_5,10	25.849321	0.7407994	24.301472	27.246337	298.2915	1.044265
cr_5,11	7.924631	0.7799682	6.468031	9.496372	362.7183	1.034505

Table 21: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
cr_6,1	9.469510	1.0638455	7.559258	11.686172	635.7826	1.024275
cr_6,2	8.376266	0.8542370	6.882566	10.197188	911.0315	1.022201
cr_6,3	10.981256	1.2282081	8.665760	13.516745	312.8897	1.055086
cr_6,4	19.235691	2.4444360	14.368500	24.077127	660.3295	1.057239
cr_6,5	13.006378	1.4295821	10.272365	15.953895	642.6046	1.046781
cr_6,6	9.066786	1.1056297	6.928713	11.417000	177.5313	1.074065
cr_6,7	5.612442	0.7639951	4.271856	7.193196	178.9950	1.069924
cr_6,8	4.355693	0.4269953	3.576549	5.283058	827.5983	1.022812
cr_6,9	11.394781	1.6534976	8.652070	14.801308	112.1515	1.123299
cr_6,10	26.081308	0.7147956	24.620172	27.390918	169.9844	1.074635
cr_6,11	8.709710	0.9124979	7.106485	10.602398	162.6169	1.083406
cr_7,1	9.456165	1.2917776	7.119493	12.154483	315.8109	1.044342
cr_7,2	7.536607	1.0338770	5.765191	9.690378	216.0585	1.057857
cr_7,3	11.729223	1.5455448	8.920597	14.668235	167.7148	1.082916
cr_7,4	19.748394	2.5167830	14.867888	24.801310	1067.5392	1.066606
cr_7,5	14.008571	1.7283235	10.789320	17.663475	719.1791	1.024846
cr_7,6	10.023244	1.5272580	6.996862	12.984620	141.9072	1.090496
cr_7,7	5.837252	0.8617310	4.360917	7.690128	255.6896	1.049488
cr_7,8	4.944808	0.6452916	3.818395	6.319949	421.1854	1.032205
cr_7,9	12.181984	1.8658238	9.011824	16.120842	311.4289	1.044907
cr_7,10	26.085690	0.7648395	24.539092	27.559410	469.7717	1.031571
cr_7,11	7.746727	0.9599537	6.005914	9.651072	161.3929	1.078849
cr_8,1	9.392977	1.4124890	6.795491	12.285720	194.9530	1.064012
cr_8,2	7.644328	1.0311038	5.805058	9.760383	363.1975	1.039568
cr_8,3	11.685753	1.5105005	8.852808	14.727573	257.4097	1.052565
cr_8,4	19.657928	2.5354945	14.711602	24.699047	517.3190	1.032339
cr_8,5	13.445377	1.8353917	10.077740	17.263300	246.4131	1.061588
cr_8,6	10.001802	1.4575645	7.415619	13.156440	420.9472	1.038951
cr_8,7	6.120685	0.9048695	4.484415	8.042886	570.8361	1.032888
cr_8,8	4.578662	0.6150792	3.481939	5.938736	990.6279	1.025246
cr_8,9	11.943057	1.9100767	8.609001	16.032763	324.4631	1.043543
cr_8,10	26.088742	0.7713748	24.433982	27.568603	379.0334	1.034488
cr_8,11	7.683115	0.9568953	6.020837	9.662410	248.8259	1.053948
cr_9,1	9.625720	1.2894986	7.403582	12.289355	335.0651	1.074254
cr_9,2	7.578137	0.9379709	5.887629	9.641101	2748.7710	1.082409
cr_9,3	11.466219	1.4219425	8.816985	14.377557	779.4319	1.038981
cr_9,4	19.902475	2.6598302	14.682702	24.821243	274.7798	1.053054
cr_9,5	13.410167	1.7319105	10.187288	17.015095	1299.6076	1.029065
cr_9,6	10.111168	1.5555305	7.391537	13.235878	152.3225	1.083145
cr_9,7	6.130088	0.9267751	4.443391	8.149135	450.9418	1.031648
cr_9,8	4.558421	0.6082678	3.453261	5.941456	1835.4968	1.049038
cr_9,9	12.031357	2.0335319	8.700299	16.675898	127.7752	1.105350
cr_9,10	26.073430	0.7396119	24.543930	27.493903	1068.0690	1.020115
cr_9,11	7.517864	0.9038237	5.812072	9.260633	194.6415	1.064509
cr_10,1	9.822246	1.0750886	7.862046	12.094260	902.5042	1.038167
cr_10,2	7.595773	0.9900732	5.789891	9.613700	410.1580	1.032987

Table 21: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
cr_10,3	11.254074	1.4378644	8.609213	14.205325	416.0277	1.035663
cr_10,4	20.078087	2.4988775	15.141980	24.825502	343.0348	1.044230
cr_10,5	13.375040	1.7820556	10.171190	17.161258	511.4917	1.064248
cr_10,6	11.242871	1.4982625	8.694179	14.392695	223.3119	1.057826
cr_10,7	6.031120	0.8972926	4.448901	7.999819	418.8268	1.064264
cr_10,8	4.152046	0.4811320	3.274362	5.191950	347.6546	1.041348
cr_10,9	11.828595	1.8654431	8.563439	15.836908	286.9360	1.105424
cr_10,10	25.864976	0.7731895	24.284968	27.318330	348.6511	1.038049
cr_10,11	7.433581	0.8793233	5.843862	9.233893	293.9412	1.041760
cr_11,1	9.110189	0.9590633	7.336177	11.125663	339.1921	1.041264
cr_11,2	7.799864	0.6952371	6.580714	9.227222	421.4855	1.032069
cr_11,3	11.410168	1.3347556	8.946791	14.108648	289.7211	1.045177
cr_11,4	20.087506	2.4763855	15.265918	24.896857	304.4926	1.050392
cr_11,5	13.742212	1.5912432	10.825345	17.107165	406.8230	1.059857
cr_11,6	10.333621	1.2373038	7.805394	12.813968	146.0818	1.104153
cr_11,7	7.729007	1.1074091	5.817151	10.216020	1493.4198	1.050786
cr_11,8	5.465371	0.5201143	4.514600	6.566826	431.3720	1.049195
cr_11,9	11.115220	1.6670927	8.187828	14.604295	380.6499	1.038961
cr_11,10	26.349730	0.7366464	24.823680	27.715263	243.0306	1.055840
cr_11,11	7.803465	0.7682160	6.399313	9.343194	222.2406	1.059012
cr_12,1	9.699877	1.0021095	7.909432	11.880050	2007.8680	1.040318
cr_12,2	8.708584	0.7801110	7.323606	10.391300	821.0011	1.058672
cr_12,3	11.132806	1.3676073	8.558374	13.727082	169.6338	1.081393
cr_12,4	20.453097	2.4672503	15.422218	25.115073	296.9587	1.051483
cr_12,5	13.715861	1.6708215	10.520410	17.138313	566.6943	1.053365
cr_12,6	10.612505	1.2694204	8.399530	13.464065	255.1053	1.050055
cr_12,7	5.465278	0.7269905	4.069983	7.005750	184.3105	1.074874
cr_12,8	5.070629	0.4878004	4.170614	6.088847	312.9107	1.043090
cr_12,9	10.612706	1.6286836	7.870581	14.111375	179.4824	1.077227
cr_12,10	26.359772	0.7160466	24.935658	27.772723	605.1733	1.029537
cr_12,11	7.986396	0.8177810	6.570645	9.689466	118.7594	1.109538
cr_13,1	8.736260	0.9335023	7.026533	10.696825	606.3600	1.025272
cr_13,2	7.480979	0.6636216	6.309753	8.918424	743.5040	1.022527
cr_13,3	10.851563	1.2355854	8.585829	13.378208	533.3009	1.047336
cr_13,4	20.465384	2.2962552	15.823390	24.819792	579.6240	1.032927
cr_13,5	14.561863	1.6211463	11.485780	17.863165	480.7572	1.051501
cr_13,6	9.952169	1.1951907	7.851580	12.531985	520.3631	1.063299
cr_13,7	5.944598	0.8850106	4.120131	7.827161	180.0699	1.089508
cr_13,8	4.210866	0.4065155	3.463396	5.078941	354.3122	1.046420
cr_13,9	12.414569	2.0777071	9.206187	17.043455	120.2159	1.110644
cr_13,10	26.168064	0.7304254	24.706265	27.535965	336.6145	1.043017
cr_13,11	7.772027	0.7230979	6.396892	9.249600	1246.3717	1.017715
cr_14,1	9.947266	1.0845910	7.973252	12.215370	1003.3267	1.031758
cr_14,2	8.135415	0.7309598	6.863280	9.680890	511.4607	1.031230
cr_14,3	13.193744	1.4900690	10.453878	16.033542	186.5236	1.068783
cr_14,4	20.177750	2.4964606	15.227177	25.088785	844.2829	1.028485
cr_14,5	13.319724	1.6571568	10.204612	16.749952	803.1616	1.047046

Table 21: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
cr_14,6	10.299350	1.3055806	7.978772	12.981257	244.9409	1.078232
cr_14,7	6.452870	0.9203058	4.778546	8.274050	295.2916	1.045513
cr_14,8	4.615873	0.4600547	3.736952	5.602486	2292.4591	1.057527
cr_14,9	11.939954	1.8551802	8.974183	15.984110	182.1764	1.076018
cr_14,10	26.188875	0.7632031	24.607672	27.607635	188.4329	1.067933
cr_14,11	7.576906	0.8169958	6.006078	9.295113	2130.8565	1.025967
cr_15,1	9.160355	1.0933309	7.245698	11.531063	2146.4794	1.056913
cr_15,2	7.139448	0.9016038	5.439956	9.091664	1230.5335	1.066479
cr_15,3	12.274256	1.5350326	9.443432	15.530157	326.8395	1.044603
cr_15,4	19.924837	2.6413924	14.833932	25.057365	216.9648	1.064262
cr_15,5	13.311403	1.8512090	10.255178	17.235547	193.8876	1.065611
cr_15,6	9.899483	1.4327629	7.444166	13.012090	286.2061	1.044698
cr_15,7	6.084697	0.9802520	4.198640	8.151228	132.7091	1.096465
cr_15,8	4.592056	0.5879215	3.495360	5.843755	2365.0672	1.019052
cr_15,9	11.943883	1.9630932	8.652050	16.344325	213.4107	1.062213
cr_15,10	26.099810	0.7531326	24.628888	27.571503	735.2799	1.024212
cr_15,11	7.736173	0.9571123	6.031596	9.700555	207.0032	1.061000
cr_16,1	9.974328	1.2884275	7.708532	12.846367	1632.8964	1.060148
cr_16,2	7.695634	1.0416089	5.873515	10.058880	360.2905	1.101512
cr_16,3	11.081635	1.5472282	8.336358	14.126555	102.1403	1.126791
cr_16,4	20.022545	2.6271773	14.753568	24.561740	162.2789	1.081938
cr_16,5	13.451550	1.7661547	10.107690	17.032035	510.9115	1.028568
cr_16,6	9.934827	1.4189383	7.344981	13.005150	899.4188	1.065164
cr_16,7	6.023866	0.9682628	3.988927	8.077800	173.7156	1.102802
cr_16,8	4.549948	0.6102879	3.482414	5.872136	374.0750	1.038107
cr_16,9	12.014124	1.8997109	8.721178	15.957543	318.6760	1.048744
cr_16,10	26.086426	0.7560759	24.587968	27.548127	429.1877	1.035701
cr_16,11	7.644600	0.9735286	5.700257	9.452016	139.6769	1.091728
cr_17,1	9.161164	1.0767662	7.265115	11.469712	817.5764	1.063269
cr_17,2	6.420352	0.6512663	5.240664	7.844515	730.4405	1.025030
cr_17,3	11.716532	1.5076605	8.877160	14.721245	464.0015	1.034774
cr_17,4	19.932964	2.6523692	14.916018	24.766533	175.1488	1.082688
cr_17,5	13.401255	1.7498816	10.189412	17.114525	1784.1364	1.072336
cr_17,6	9.940810	1.4328421	7.587789	12.936775	140.1224	1.091732
cr_17,7	5.866322	0.9052081	4.235530	7.865627	217.2052	1.077340
cr_17,8	4.567110	0.6131912	3.449257	5.891406	637.1485	1.040877
cr_17,9	11.881160	1.9232343	8.677170	15.984402	212.8829	1.062622
cr_17,10	26.086051	0.7484652	24.600380	27.530760	467.8987	1.028695
cr_17,11	7.765113	0.9819364	5.955255	9.668501	182.6088	1.068880
cr_18,1	9.017972	1.0550251	7.005447	11.246503	243.9946	1.053513
cr_18,2	6.610971	0.6705448	5.345760	7.931990	320.6960	1.041118
cr_18,3	11.696647	1.4381596	8.966486	14.639210	2239.0476	1.019474
cr_18,4	20.008929	2.6313071	14.781060	24.777252	196.7591	1.068530
cr_18,5	13.581167	1.8234722	10.203428	17.305132	400.4262	1.072934
cr_18,6	10.023215	1.4641615	7.274958	12.983828	220.1084	1.058256
cr_18,7	6.126751	0.9223503	4.484772	8.099849	452.7583	1.031481
cr_18,8	4.598744	0.5949098	3.515170	5.760261	178.1559	1.071512

Table 21: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
cr_18,9	11.887756	1.8585196	8.704372	15.793190	325.2494	1.044608
cr_18,10	26.049599	0.7828104	24.393000	27.517267	195.3292	1.064388
cr_18,11	7.751737	0.9812285	5.955970	9.732848	169.0062	1.076602
cr_19,1	9.700831	1.2816915	7.436557	12.360045	188.5746	1.065979
cr_19,2	7.703947	0.8989180	6.169985	9.632426	159.1826	1.082809
cr_19,3	11.581020	1.6215449	8.605800	14.687098	127.7833	1.104490
cr_19,4	19.775317	2.5191312	14.787090	24.897360	1090.5387	1.056706
cr_19,5	13.491530	1.7583868	10.138850	17.014067	498.9411	1.025619
cr_19,6	10.130909	1.5632605	7.446090	13.414145	146.4978	1.086244
cr_19,7	6.276112	0.8792990	4.682867	8.175813	1709.2848	1.044747
cr_19,8	5.387553	0.6371117	4.253670	6.728267	492.2546	1.059868
cr_19,9	11.938844	1.9634915	8.580512	16.342135	265.2931	1.050543
cr_19,10	26.119347	0.7581709	24.590888	27.589405	919.7219	1.020118
cr_19,11	7.774370	0.9796411	5.993169	9.694900	145.0383	1.088719

Table 22: Parameter estimates for mean energy intake rate, $\bar{er}_{g,j}$ (kcal/min), by group level g and by prey type j

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
er_1,1	7.091304	0.9629726	5.368783	9.103555	392.41921	1.033301
er_1,2	5.822197	0.8114328	4.488460	7.450543	132.84440	1.094904
er_1,3	7.321144	0.9376048	5.610160	9.320739	373.67379	1.034774
er_1,4	20.252029	2.5970489	15.051557	25.088802	580.47049	1.033705
er_1,5	11.015522	1.4575111	8.249496	14.032813	1296.04967	1.056184
er_1,6	7.682713	1.0472687	5.806213	9.843863	218.95504	1.057496
er_1,7	4.731950	0.6883713	3.531104	6.253200	450.51335	1.030664
er_1,8	4.931164	0.6705351	3.708257	6.336224	210.75855	1.059773
er_1,9	16.196548	2.7091685	11.757710	22.487678	179.39110	1.073067
er_1,10	28.522898	0.8676436	26.792967	30.201213	318.28960	1.044355
er_1,11	3.712058	0.4409631	2.873295	4.607392	559.19979	1.026661
er_2,1	7.446348	0.8043193	6.021414	9.176431	1148.09730	1.040411
er_2,2	6.719073	0.6209049	5.614144	8.012235	516.86260	1.026180
er_2,3	7.935056	0.9007424	6.242692	9.653634	259.38054	1.055217
er_2,4	19.518235	2.1941690	15.193682	23.817403	280.70947	1.052601
er_2,5	10.551148	1.1626337	8.426663	12.994212	845.20525	1.039734
er_2,6	7.669709	0.9524288	5.927538	9.568965	207.35220	1.060223
er_2,7	4.910926	0.6788438	3.743686	6.327548	195.97344	1.066126
er_2,8	4.775271	0.4719248	3.928889	5.771132	473.80900	1.031530
er_2,9	17.911888	2.2227198	13.917843	22.613210	553.12064	1.033853
er_2,10	28.746312	0.8263212	27.079545	30.339182	702.77728	1.022227
er_2,11	3.705526	0.3430326	3.068679	4.410754	918.43729	1.023669
er_3,1	6.795548	0.8278876	5.313542	8.413895	160.03927	1.079796
er_3,2	5.846590	0.5623678	4.857846	7.061543	597.49834	1.024961
er_3,3	8.254326	1.0203267	6.442467	10.373197	129.43146	1.104304
er_3,4	19.563941	2.3696410	14.962855	24.328063	521.79419	1.034039

Table 22: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
er_3,5	11.346050	1.3013402	8.829831	13.938540	548.15489	1.026551
er_3,6	6.303984	0.8046035	4.893168	8.066631	473.70875	1.028623
er_3,7	4.901864	0.6750029	3.670162	6.287129	381.34880	1.035191
er_3,8	4.266801	0.4749795	3.401879	5.266681	208.65558	1.065633
er_3,9	15.496844	2.0514081	12.069458	19.799717	224.17585	1.064833
er_3,10	28.407299	0.8772264	26.572690	30.059395	376.06494	1.038345
er_3,11	3.678494	0.3719657	3.013190	4.435030	133.44691	1.098882
er_4,1	7.499924	0.8623850	5.890826	9.163588	239.63281	1.057108
er_4,2	5.409769	0.5130689	4.416317	6.473307	2027.64849	1.034034
er_4,3	7.060289	0.9056379	5.234466	8.807180	146.62213	1.092839
er_4,4	20.266401	2.6065100	15.019625	25.241813	499.91241	1.033570
er_4,5	10.450840	1.2407868	8.162763	13.049245	1408.48519	1.052191
er_4,6	7.737895	0.9232042	6.058074	9.648730	242.38124	1.050566
er_4,7	5.143488	0.7579626	3.770293	6.809525	262.57228	1.065491
er_4,8	4.478526	0.5102790	3.425706	5.551728	236.45829	1.082766
er_4,9	15.656155	2.4848341	11.733612	21.298458	99.94687	1.134522
er_4,10	28.384628	0.8583379	26.630412	30.027540	330.24074	1.041833
er_4,11	3.489879	0.3542727	2.815364	4.167592	324.92760	1.041296
er_5,1	6.963867	0.8735934	5.421172	8.711206	242.64440	1.053631
er_5,2	6.075108	0.6175428	4.957674	7.356113	600.17403	1.037711
er_5,3	8.266163	1.0553976	6.301916	10.225200	143.95989	1.092841
er_5,4	19.890723	2.3694035	15.285505	24.517355	593.99171	1.035039
er_5,5	10.729936	1.2356961	8.355093	13.254915	514.44711	1.029046
er_5,6	7.461883	0.8609200	5.879005	9.258474	522.95871	1.044983
er_5,7	4.944800	0.6848375	3.758242	6.416099	412.54928	1.056662
er_5,8	5.167464	0.5241964	4.193971	6.289013	2527.84695	1.046955
er_5,9	15.379345	2.2565876	11.608778	20.323810	257.68689	1.056102
er_5,10	28.240840	0.8478237	26.518195	29.878700	338.78512	1.041163
er_5,11	3.803129	0.3753289	3.106285	4.552342	369.43961	1.033800
er_6,1	7.184210	0.8074089	5.728828	8.890860	642.23149	1.024076
er_6,2	6.472401	0.6622252	5.303936	7.866754	916.63506	1.020182
er_6,3	7.146493	0.8024833	5.636792	8.822003	313.10024	1.052914
er_6,4	19.564678	2.4903548	14.616978	24.532373	662.07658	1.053878
er_6,5	10.705138	1.1775573	8.470970	13.145205	665.49297	1.045558
er_6,6	6.954479	0.8507588	5.329579	8.774774	179.37788	1.073224
er_6,7	4.582292	0.6255081	3.484352	5.882240	181.94439	1.068977
er_6,8	4.672784	0.4608617	3.829167	5.670805	775.47643	1.020812
er_6,9	15.119028	2.1970683	11.454907	19.678180	112.68749	1.122994
er_6,10	28.494256	0.8200282	26.853352	30.000025	186.72219	1.068011
er_6,11	4.179956	0.4394489	3.402058	5.101269	164.21217	1.082576
er_7,1	7.174384	0.9803736	5.405623	9.212287	321.82698	1.044102
er_7,2	5.823315	0.7995660	4.464887	7.492821	212.12987	1.058320
er_7,3	7.634071	1.0096858	5.798978	9.555669	166.52635	1.082306
er_7,4	20.085706	2.5647736	15.107860	25.322643	1070.14606	1.063447
er_7,5	11.530280	1.4248853	8.878551	14.527382	765.52507	1.024293
er_7,6	7.688005	1.1730374	5.372974	9.992622	143.42637	1.089332
er_7,7	4.766299	0.7058579	3.562597	6.291142	258.22631	1.048575

Table 22: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
er_7,8	5.304297	0.6941491	4.096207	6.769341	419.81044	1.032067
er_7,9	16.163691	2.4776892	11.925230	21.342040	312.09717	1.045053
er_7,10	28.498856	0.8723383	26.755185	30.216902	513.11086	1.028862
er_7,11	3.717817	0.4615895	2.880663	4.634946	163.20382	1.077988
er_8,1	7.126591	1.0720421	5.149652	9.297224	193.58115	1.064357
er_8,2	5.907259	0.7986273	4.485558	7.527124	370.75320	1.039345
er_8,3	7.606020	0.9862940	5.763856	9.582193	253.64481	1.052390
er_8,4	19.994074	2.5844080	14.962813	25.161812	539.94647	1.032288
er_8,5	11.066936	1.5130912	8.261202	14.230947	251.43442	1.060783
er_8,6	7.671525	1.1199026	5.701258	10.098532	428.28058	1.038457
er_8,7	4.997761	0.7397740	3.653896	6.589943	596.36743	1.033623
er_8,8	4.911990	0.6629414	3.728471	6.392480	1036.22007	1.026128
er_8,9	15.845908	2.5369782	11.425560	21.295117	324.38372	1.043692
er_8,10	28.502329	0.8772057	26.694010	30.198622	429.69764	1.032456
er_8,11	3.687079	0.4604639	2.886777	4.648762	250.05770	1.053616
er_9,1	7.303055	0.9780706	5.624719	9.318601	338.39462	1.075415
er_9,2	5.855831	0.7265910	4.546323	7.438384	2744.16434	1.078756
er_9,3	7.463121	0.9291851	5.731103	9.371976	785.48859	1.037500
er_9,4	20.243609	2.7102086	14.963508	25.289247	279.33044	1.052905
er_9,5	11.037850	1.4290113	8.383260	14.007718	1309.06247	1.028356
er_9,6	7.755138	1.1944537	5.676203	10.134325	153.54900	1.082254
er_9,7	5.005477	0.7590524	3.624673	6.656218	461.73792	1.031178
er_9,8	4.890182	0.6547452	3.702900	6.369092	1812.96727	1.044766
er_9,9	15.963413	2.7007515	11.541490	22.069463	127.19175	1.105526
er_9,10	28.485292	0.8439873	26.735575	30.082940	1048.24791	1.018775
er_9,11	3.607760	0.4345285	2.790446	4.451536	196.23212	1.063575
er_10,1	7.452144	0.8159207	5.967054	9.156266	914.80740	1.035490
er_10,2	5.869613	0.7673132	4.480831	7.459670	415.01339	1.032851
er_10,3	7.325004	0.9390378	5.605803	9.235654	423.17486	1.035205
er_10,4	20.422254	2.5471585	15.390825	25.270813	345.60039	1.044400
er_10,5	11.009361	1.4712696	8.364609	14.133225	522.88443	1.061508
er_10,6	8.622960	1.1512754	6.666371	11.034263	226.55288	1.057274
er_10,7	4.924251	0.7350641	3.631424	6.532178	425.13103	1.066448
er_10,8	4.453835	0.5182291	3.510621	5.560647	346.06590	1.041480
er_10,9	15.693735	2.4763656	11.366885	21.041622	286.96635	1.104552
er_10,10	28.257140	0.8806485	26.486980	29.962103	389.90976	1.035726
er_10,11	3.567308	0.4228478	2.804028	4.426902	296.91950	1.041316
er_11,1	6.911882	0.7287376	5.566878	8.447070	341.90462	1.041125
er_11,2	6.027368	0.5405783	5.080334	7.136474	418.71696	1.031838
er_11,3	7.426848	0.8730004	5.830105	9.189068	290.09600	1.044544
er_11,4	20.430574	2.5235158	15.510798	25.373000	321.01920	1.049926
er_11,5	11.311409	1.3130455	8.897291	14.095265	416.67292	1.056481
er_11,6	7.926251	0.9515884	5.991127	9.860511	148.65644	1.102799
er_11,7	6.311226	0.9073639	4.735221	8.376471	1508.95331	1.048033
er_11,8	5.863386	0.5611831	4.837969	7.045455	428.51171	1.044974
er_11,9	14.747583	2.2150223	10.886730	19.367035	379.97993	1.039029
er_11,10	28.787661	0.8424126	27.044042	30.371913	255.42408	1.052434

Table 22: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
er_11,11	3.744949	0.3701988	3.070056	4.486483	224.45717	1.058227
er_12,1	7.359371	0.7611032	5.997967	9.007159	2004.56877	1.038934
er_12,2	6.730182	0.6066062	5.647726	8.020337	854.09331	1.055210
er_12,3	7.245548	0.8929520	5.553193	8.913865	172.05195	1.080590
er_12,4	20.803635	2.5125922	15.746680	25.585035	300.69611	1.051377
er_12,5	11.289206	1.3775258	8.647754	14.094035	575.43412	1.049609
er_12,6	8.139610	0.9744774	6.435105	10.314008	257.58872	1.049762
er_12,7	4.462558	0.5961722	3.324622	5.726113	187.94434	1.072215
er_12,8	5.439522	0.5258993	4.462780	6.539590	311.94814	1.042472
er_12,9	14.080943	2.1651123	10.431527	18.732705	180.43491	1.077302
er_12,10	28.798456	0.8194040	27.175360	30.395235	603.87336	1.027067
er_12,11	3.832601	0.3931424	3.149502	4.648471	120.50491	1.107793
er_13,1	6.628091	0.7093572	5.334482	8.120927	605.58838	1.025037
er_13,2	5.780963	0.5158243	4.869959	6.885395	714.01753	1.022634
er_13,3	7.062784	0.8079329	5.598415	8.706829	542.37787	1.045946
er_13,4	20.815816	2.3398874	16.133073	25.264332	599.76144	1.032628
er_13,5	11.985991	1.3381028	9.475272	14.706355	484.25189	1.051354
er_13,6	7.633714	0.9199435	6.029350	9.626207	527.99858	1.059509
er_13,7	4.854210	0.7244126	3.364264	6.408361	181.33983	1.088371
er_13,8	4.517124	0.4383907	3.704061	5.449723	356.37562	1.047795
er_13,9	16.472184	2.7603180	12.162197	22.689930	119.79215	1.111110
er_13,10	28.589111	0.8378981	26.940877	30.210525	342.08567	1.040010
er_13,11	3.729632	0.3479720	3.068200	4.438921	1292.70225	1.017594
er_14,1	7.546917	0.8233135	6.043982	9.267297	1004.27066	1.029980
er_14,2	6.286160	0.5680363	5.287758	7.486701	507.78588	1.031425
er_14,3	8.587493	0.9733816	6.786515	10.440318	186.72351	1.068212
er_14,4	20.524043	2.5456692	15.468090	25.528733	881.22702	1.029929
er_14,5	10.963600	1.3637531	8.376401	13.779385	845.29480	1.048296
er_14,6	7.899909	1.0036903	6.107585	9.964471	249.60841	1.079703
er_14,7	5.269117	0.7535324	3.888446	6.784328	300.48603	1.044694
er_14,8	4.951786	0.4966861	4.000330	6.014276	2308.69489	1.049657
er_14,9	15.842297	2.4638646	11.891465	21.239328	182.30494	1.076022
er_14,10	28.611496	0.8702865	26.877102	30.260713	201.04132	1.063920
er_14,11	3.635957	0.3928100	2.885390	4.451789	2199.49973	1.026260
er_15,1	6.949843	0.8301015	5.497019	8.751118	2132.40336	1.055135
er_15,2	5.516799	0.6978748	4.200558	7.035562	1211.07580	1.059282
er_15,3	7.988708	1.0022019	6.145879	10.092875	336.51139	1.044192
er_15,4	20.266144	2.6908761	15.059767	25.547837	218.69978	1.064313
er_15,5	10.956651	1.5271460	8.448479	14.189175	194.43498	1.065569
er_15,6	7.592733	1.1007193	5.707565	9.980397	290.30786	1.044052
er_15,7	4.968297	0.8017084	3.439689	6.650906	133.00488	1.095504
er_15,8	4.926392	0.6325189	3.746911	6.272039	2414.01419	1.019816
er_15,9	15.846673	2.6062996	11.502945	21.651083	213.94651	1.062179
er_15,10	28.514687	0.8598216	26.852193	30.178180	725.21834	1.022398
er_15,11	3.712822	0.4607206	2.892130	4.657552	208.87101	1.059786
er_16,1	7.567372	0.9775976	5.852012	9.725786	1631.66248	1.061487

Table 22: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
er_16,2	5.946498	0.8068279	4.537445	7.769704	368.95881	1.100793
er_16,3	7.212439	1.0105161	5.420646	9.213248	102.68102	1.126276
er_16,4	20.365885	2.6772993	15.005225	24.979623	162.47819	1.081705
er_16,5	11.071930	1.4580567	8.306351	13.983063	508.81601	1.028928
er_16,6	7.619984	1.0911006	5.645225	9.983916	912.28597	1.060680
er_16,7	4.918554	0.7921223	3.256608	6.586708	173.70120	1.100399
er_16,8	4.881069	0.6574613	3.733361	6.306869	369.11177	1.038530
er_16,9	15.939830	2.5211802	11.559368	21.174743	320.79583	1.048926
er_16,10	28.500316	0.8637502	26.780117	30.199717	449.88535	1.031765
er_16,11	3.668699	0.4674529	2.735412	4.543196	140.42303	1.091312
er_17,1	6.950494	0.8177826	5.495514	8.697518	815.99422	1.060458
er_17,2	4.961303	0.5051915	4.044280	6.065995	743.62534	1.024868
er_17,3	7.626146	0.9850462	5.767945	9.535001	474.73993	1.034411
er_17,4	20.274202	2.7009268	15.116940	25.143352	179.80647	1.081462
er_17,5	11.030399	1.4434327	8.358678	14.120638	1782.82674	1.067664
er_17,6	7.624353	1.1005141	5.787557	9.916577	140.94961	1.091136
er_17,7	4.789594	0.7405543	3.457321	6.419021	220.70617	1.074839
er_17,8	4.899098	0.6596514	3.705327	6.303686	636.02730	1.038860
er_17,9	15.764010	2.5531413	11.502512	21.239940	213.14586	1.062902
er_17,10	28.499183	0.8535888	26.815728	30.165325	530.78828	1.025963
er_17,11	3.726605	0.4723780	2.856937	4.645021	185.70096	1.067634
er_18,1	6.842046	0.8017404	5.318925	8.525078	245.12941	1.053038
er_18,2	5.108583	0.5208654	4.129873	6.129899	329.70155	1.040230
er_18,3	7.613124	0.9411339	5.825820	9.522674	2240.12181	1.019359
er_18,4	20.352300	2.6810850	15.031042	25.224628	198.64378	1.068612
er_18,5	11.178420	1.5044552	8.388055	14.248085	399.92435	1.067451
er_18,6	7.687672	1.1242021	5.581291	9.962279	221.00771	1.057888
er_18,7	5.003167	0.7559278	3.659703	6.613360	461.78373	1.031118
er_18,8	4.933364	0.6399912	3.756702	6.196502	179.55299	1.070933
er_18,9	15.772308	2.4658683	11.539605	20.934342	322.77095	1.044728
er_18,10	28.459026	0.8910320	26.601705	30.143922	212.08659	1.059671
er_18,11	3.720223	0.4717396	2.861594	4.678807	171.16331	1.075873
er_19,1	7.359890	0.9727355	5.638526	9.372794	189.21712	1.065784
er_19,2	5.952546	0.6967235	4.759394	7.460266	158.40656	1.082585
er_19,3	7.537765	1.0589098	5.607848	9.567614	128.09393	1.104550
er_19,4	20.113759	2.5667821	15.063197	25.370795	1092.69517	1.055098
er_19,5	11.104685	1.4482528	8.359179	14.022350	514.28117	1.025061
er_19,6	7.770906	1.2021863	5.690474	10.279825	148.01661	1.085056
er_19,7	5.124863	0.7214196	3.817717	6.682912	1769.18608	1.047777
er_19,8	5.779645	0.6857853	4.562172	7.244600	506.45886	1.053671
er_19,9	15.840690	2.6062916	11.360935	21.677045	267.76461	1.050496
er_19,10	28.535530	0.8643111	26.813430	30.212927	945.31175	1.018795
er_19,11	3.730782	0.4708711	2.881187	4.659531	146.93209	1.087966

Table 23: Parameter estimates for $\lambda_{g,j}$, mean dive success rate by group level g and by prey type j

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
lambda_1,1	0.9252381	0.0263195	0.8615360	0.9643672	1087.49124	1.086641
lambda_1,2	0.9438889	0.0218845	0.8939174	0.9758506	362.79713	1.091943
lambda_1,3	0.8571960	0.0526435	0.7303628	0.9347769	130.77987	1.097275
lambda_1,4	0.4179044	0.1067851	0.2301916	0.6215156	142.91266	1.117479
lambda_1,5	0.6305161	0.0979743	0.4315570	0.7963281	208.53311	1.062589
lambda_1,6	0.7839684	0.0607638	0.6546686	0.8858322	342.24566	1.041621
lambda_1,7	0.8812386	0.0409604	0.7818901	0.9431232	759.11349	1.100966
lambda_1,8	0.9728577	0.0112556	0.9478713	0.9881386	182.67425	1.068489
lambda_1,9	0.7651456	0.1291176	0.4653038	0.9408757	164.09811	1.097673
lambda_1,10	0.8080724	0.0955113	0.5702923	0.9443851	154.13508	1.089773
lambda_1,11	0.8924518	0.0381149	0.8007617	0.9501160	2151.52610	1.038742
lambda_2,1	0.9312626	0.0136332	0.9021727	0.9543529	253.45372	1.051706
lambda_2,2	0.9432049	0.0153897	0.8999200	0.9660456	90.98142	1.178688
lambda_2,3	0.8985492	0.0288140	0.8321009	0.9439286	273.24821	1.085984
lambda_2,4	0.3144460	0.0543220	0.2231576	0.4328244	433.46500	1.033137
lambda_2,5	0.5839530	0.0716153	0.4437455	0.7166910	235.41564	1.055342
lambda_2,6	0.8370796	0.0547746	0.6445050	0.9033947	91.34220	1.152689
lambda_2,7	0.9210819	0.0205404	0.8727814	0.9523200	542.27583	1.024775
lambda_2,8	0.9773149	0.0042946	0.9671059	0.9843450	220.93439	1.075398
lambda_2,9	0.7507043	0.1306087	0.4724961	0.9367143	146.58545	1.111085
lambda_2,10	0.8034637	0.0959393	0.5752013	0.9582682	113.08569	1.122097
lambda_2,11	0.9357818	0.0146696	0.9039723	0.9607537	697.85679	1.028936
lambda_3,1	0.9201896	0.0153695	0.8854026	0.9465961	1786.88765	1.153852
lambda_3,2	0.9274311	0.0162261	0.8901041	0.9538852	895.43607	1.047342
lambda_3,3	0.8525493	0.0375630	0.7706825	0.9160540	478.54030	1.027990
lambda_3,4	0.3824562	0.0713734	0.2541330	0.5316321	238.41410	1.055477
lambda_3,5	0.6314558	0.0837824	0.4640881	0.7819543	109.03712	1.124388
lambda_3,6	0.7692685	0.0475200	0.6644651	0.8513638	694.14843	1.022460
lambda_3,7	0.9301963	0.0186274	0.8885249	0.9587996	204.42450	1.061632
lambda_3,8	0.9774543	0.0046715	0.9671079	0.9855302	483.49458	1.026868
lambda_3,9	0.7414052	0.1323500	0.4590246	0.9321658	123.28378	1.124764
lambda_3,10	0.8024828	0.0987242	0.5717856	0.9461812	107.03690	1.127261
lambda_3,11	0.8938856	0.0219089	0.8434646	0.9312527	499.66646	1.141690
lambda_4,1	0.9399374	0.0129069	0.9106509	0.9611417	1195.48803	1.018151
lambda_4,2	0.9303631	0.0181116	0.8907076	0.9581015	160.79219	1.077752
lambda_4,3	0.8787375	0.0384074	0.7865558	0.9356322	272.74209	1.050817
lambda_4,4	0.4163205	0.1025323	0.2343270	0.6160091	175.89775	1.075417
lambda_4,5	0.5986835	0.0779354	0.4414967	0.7347377	228.66956	1.058964
lambda_4,6	0.7930612	0.0370636	0.7113946	0.8539956	410.18245	1.038012
lambda_4,7	0.8922120	0.0352495	0.8195158	0.9564380	71.38211	1.200225
lambda_4,8	0.9705696	0.0065055	0.9556718	0.9812893	431.98782	1.032723
lambda_4,9	0.7658061	0.1259694	0.4477999	0.9438168	229.10950	1.076928
lambda_4,10	0.7900194	0.0950792	0.5569190	0.9297893	242.95990	1.071234
lambda_4,11	0.9088014	0.0190627	0.8670839	0.9425225	949.51273	1.050724
lambda_5,1	0.9203808	0.0196202	0.8760449	0.9531482	335.29000	1.037907
lambda_5,2	0.9265018	0.0210791	0.8806114	0.9581305	118.68931	1.140736

Table 23: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
lambda_5,3	0.8926414	0.0359923	0.8044627	0.9520133	111.16104	1.116291
lambda_5,4	0.4061626	0.0796292	0.2652130	0.5679940	193.20872	1.066558
lambda_5,5	0.5972284	0.0767145	0.4373479	0.7386927	361.32815	1.037517
lambda_5,6	0.7752077	0.0429839	0.6867739	0.8460157	226.48044	1.056090
lambda_5,7	0.9124691	0.0255289	0.8550496	0.9499560	113.08605	1.113927
lambda_5,8	0.9771665	0.0042290	0.9678339	0.9842042	798.36923	1.047367
lambda_5,9	0.7675885	0.1233637	0.4821136	0.9399842	207.79157	1.079278
lambda_5,10	0.8048686	0.0942149	0.5735577	0.9362612	189.44998	1.112758
lambda_5,11	0.8562870	0.0291087	0.7906967	0.9052529	694.04849	1.022829
lambda_6,1	0.9415031	0.0117957	0.9161160	0.9605771	326.72955	1.040473
lambda_6,2	0.9416943	0.0158560	0.9056769	0.9663750	314.77299	1.040641
lambda_6,3	0.8641268	0.0341006	0.7932627	0.9226325	210.71271	1.061274
lambda_6,4	0.3517637	0.0701260	0.2210918	0.5064345	433.16461	1.034521
lambda_6,5	0.6789514	0.0597488	0.5481306	0.7870108	1421.24086	1.093006
lambda_6,6	0.8697197	0.0243625	0.8144047	0.9111466	1002.54572	1.079537
lambda_6,7	0.9276618	0.0189909	0.8859138	0.9584103	373.02343	1.129310
lambda_6,8	0.9780520	0.0043783	0.9687120	0.9862002	167.47446	1.078636
lambda_6,9	0.7808105	0.1169261	0.5055597	0.9427708	252.69664	1.064441
lambda_6,10	0.8010311	0.0800388	0.6154748	0.9257474	147.09876	1.088911
lambda_6,11	0.9263566	0.0158841	0.8908538	0.9524647	1856.71806	1.060657
lambda_7,1	0.9207886	0.0350239	0.8252259	0.9665746	81.24650	1.168972
lambda_7,2	0.9433104	0.0212116	0.8959237	0.9748315	202.35101	1.063434
lambda_7,3	0.8506764	0.0511388	0.7358349	0.9308112	224.24510	1.059517
lambda_7,4	0.4119773	0.0976099	0.2344659	0.6089058	470.61708	1.038553
lambda_7,5	0.6530293	0.0885054	0.4714572	0.8087006	354.01556	1.038346
lambda_7,6	0.7901082	0.0638042	0.6480022	0.8965725	367.76563	1.038075
lambda_7,7	0.8957954	0.0341748	0.8172475	0.9491972	880.91710	1.143579
lambda_7,8	0.9779259	0.0083794	0.9561946	0.9895370	136.27432	1.092129
lambda_7,9	0.7653735	0.1251639	0.4560613	0.9454710	340.77536	1.054628
lambda_7,10	0.8059930	0.0948432	0.5726189	0.9378835	205.97616	1.069236
lambda_7,11	0.8922502	0.0367290	0.8002226	0.9485544	1561.48982	1.103422
lambda_8,1	0.9228144	0.0274995	0.8584357	0.9644297	411.36185	1.049516
lambda_8,2	0.9431134	0.0214296	0.8930867	0.9748556	316.79605	1.050684
lambda_8,3	0.8574531	0.0485374	0.7458533	0.9331600	985.34336	1.141723
lambda_8,4	0.3989908	0.0975976	0.2231664	0.6049808	505.95442	1.029254
lambda_8,5	0.6237150	0.0954071	0.4345568	0.7948862	184.18619	1.072372
lambda_8,6	0.7892245	0.0634885	0.6524763	0.8958948	238.73532	1.063684
lambda_8,7	0.9031711	0.0378574	0.8134415	0.9562420	125.64157	1.103341
lambda_8,8	0.9740894	0.0103190	0.9487204	0.9893640	614.39089	1.024434
lambda_8,9	0.7669834	0.1235474	0.4573938	0.9443810	371.70786	1.045878
lambda_8,10	0.7996886	0.1012568	0.5662702	0.9605790	111.44160	1.124690
lambda_8,11	0.8899472	0.0383116	0.7985263	0.9482243	573.79003	1.029181
lambda_9,1	0.9135755	0.0324056	0.8247890	0.9578070	95.78002	1.143729
lambda_9,2	0.9435316	0.0208843	0.8937572	0.9751423	417.28573	1.032707
lambda_9,3	0.8459242	0.0539517	0.7267684	0.9280569	148.78104	1.087006
lambda_9,4	0.4136123	0.0960688	0.2331307	0.6017262	454.33729	1.031634
lambda_9,5	0.6329956	0.0985224	0.4206943	0.7966561	179.05933	1.079147

Table 23: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
lambda_9,6	0.8105681	0.0548047	0.6910412	0.9044564	1408.34956	1.053051
lambda_9,7	0.9025544	0.0379475	0.8109106	0.9544491	163.22490	1.081870
lambda_9,8	0.9744425	0.0100114	0.9494194	0.9886825	1911.00311	1.033617
lambda_9,9	0.7575052	0.1340346	0.4520064	0.9442802	159.71014	1.097858
lambda_9,10	0.8031817	0.0971106	0.5667957	0.9407217	173.64141	1.151222
lambda_9,11	0.8699062	0.0438884	0.7660879	0.9365482	204.15462	1.064465
lambda_10,1	0.9428090	0.0120033	0.9138815	0.9618918	203.85551	1.061049
lambda_10,2	0.9471271	0.0228753	0.8829290	0.9786145	90.02205	1.146077
lambda_10,3	0.8743591	0.0450896	0.7799481	0.9427838	122.04348	1.107196
lambda_10,4	0.5327976	0.0923852	0.3673214	0.7144187	136.08103	1.095133
lambda_10,5	0.6252033	0.0966292	0.4248296	0.7966570	231.18851	1.074907
lambda_10,6	0.7648882	0.0545594	0.6426666	0.8575612	1933.40929	1.145595
lambda_10,7	0.9037078	0.0365868	0.8059980	0.9534394	175.00195	1.073092
lambda_10,8	0.9793386	0.0054243	0.9667390	0.9881053	265.12100	1.110353
lambda_10,9	0.7604556	0.1317903	0.4698636	0.9439121	172.17944	1.110336
lambda_10,10	0.8053109	0.0935618	0.5747254	0.9385870	255.70568	1.058411
lambda_10,11	0.9047985	0.0293904	0.8322853	0.9488281	191.20999	1.070862
lambda_11,1	0.9101176	0.0181003	0.8702622	0.9405632	294.90819	1.043735
lambda_11,2	0.9583929	0.0091505	0.9383968	0.9740222	2180.24144	1.126029
lambda_11,3	0.8241866	0.0520452	0.7146273	0.9041796	134.40270	1.097172
lambda_11,4	0.3893723	0.0889627	0.2289333	0.5684898	289.92912	1.047660
lambda_11,5	0.5675463	0.0939014	0.3654650	0.7308766	163.93908	1.132968
lambda_11,6	0.7056022	0.0510865	0.6021908	0.7867280	97.73280	1.135441
lambda_11,7	0.8949714	0.0244050	0.8412506	0.9348586	309.38059	1.041108
lambda_11,8	0.9724071	0.0050600	0.9615934	0.9806742	220.78943	1.056511
lambda_11,9	0.7713900	0.1228583	0.4688625	0.9456937	390.09094	1.136389
lambda_11,10	0.7915430	0.0946341	0.5642251	0.9280495	212.33367	1.068840
lambda_11,11	0.8824955	0.0247480	0.8266559	0.9229230	335.97714	1.041314
lambda_12,1	0.9349914	0.0123938	0.9068075	0.9559741	1136.70791	1.065092
lambda_12,2	0.9370965	0.0134974	0.9064259	0.9588732	712.30494	1.027746
lambda_12,3	0.8420684	0.0397762	0.7522954	0.9157148	525.87731	1.026172
lambda_12,4	0.3947875	0.0884019	0.2369245	0.5780601	365.21786	1.040698
lambda_12,5	0.6438962	0.0800483	0.4793025	0.7890740	319.65251	1.112852
lambda_12,6	0.8269000	0.0305357	0.7611346	0.8896480	150.40181	1.082381
lambda_12,7	0.8835593	0.0255073	0.8285571	0.9257064	210.27798	1.060040
lambda_12,8	0.9726592	0.0046536	0.9627607	0.9806161	644.56934	1.052467
lambda_12,9	0.7638290	0.1263563	0.4457728	0.9413145	337.73521	1.052544
lambda_12,10	0.8375628	0.0859739	0.6158380	0.9460781	136.51678	1.103453
lambda_12,11	0.8781240	0.0250540	0.8216106	0.9209273	1378.05552	1.074682
lambda_13,1	0.8981161	0.0202701	0.8541318	0.9298502	163.45623	1.077028
lambda_13,2	0.9546264	0.0103820	0.9311709	0.9713396	214.51441	1.058987
lambda_13,3	0.8343810	0.0398794	0.7472689	0.9008305	302.30710	1.045517
lambda_13,4	0.4276469	0.0813604	0.2759330	0.5918835	578.53029	1.024782
lambda_13,5	0.7279116	0.0632800	0.5869763	0.8368226	304.16822	1.046266
lambda_13,6	0.8086877	0.0371784	0.7274302	0.8729076	984.54869	1.030880
lambda_13,7	0.9237821	0.0237213	0.8772235	0.9665472	77.52493	1.176932
lambda_13,8	0.9797655	0.0035954	0.9716598	0.9858480	511.22630	1.042738

Table 23: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
lambda_13,9	0.7613337	0.1302548	0.4632688	0.9428025	170.37222	1.093604
lambda_13,10	0.8257789	0.0836447	0.6173981	0.9381590	162.03115	1.089313
lambda_13,11	0.8804292	0.0257862	0.8246170	0.9243352	265.70222	1.051243
lambda_14,1	0.9347047	0.0124270	0.9079959	0.9565753	641.08671	1.064890
lambda_14,2	0.9574539	0.0102091	0.9309617	0.9731916	127.77196	1.097778
lambda_14,3	0.8954260	0.0294197	0.8347154	0.9453570	219.83505	1.059513
lambda_14,4	0.4304050	0.0914289	0.2606643	0.5975840	137.60200	1.096012
lambda_14,5	0.5793067	0.0966309	0.4091475	0.7534410	106.95170	1.121465
lambda_14,6	0.7820819	0.0568270	0.6656530	0.8731293	116.30966	1.137156
lambda_14,7	0.8965509	0.0314605	0.8241142	0.9426152	292.19505	1.047728
lambda_14,8	0.9728601	0.0053693	0.9604657	0.9819088	1912.30172	1.041867
lambda_14,9	0.7616504	0.1276473	0.4558265	0.9452025	319.75076	1.070283
lambda_14,10	0.8023252	0.0926664	0.5716921	0.9398070	420.46850	1.127004
lambda_14,11	0.8869395	0.0310562	0.8183535	0.9370846	290.34658	1.046268
lambda_15,1	0.8678326	0.0325181	0.7907066	0.9208250	725.98238	1.116344
lambda_15,2	0.9390911	0.0236139	0.8640220	0.9714710	141.95014	1.091221
lambda_15,3	0.8611716	0.0445671	0.7596628	0.9370942	893.60578	1.020159
lambda_15,4	0.4037159	0.0958868	0.2291640	0.6104307	941.82625	1.031615
lambda_15,5	0.6362259	0.0964532	0.4351856	0.8016708	218.61145	1.058170
lambda_15,6	0.7934402	0.0636573	0.6429949	0.9001820	334.77279	1.041040
lambda_15,7	0.9030691	0.0357603	0.8176852	0.9546681	458.38986	1.032014
lambda_15,8	0.9744617	0.0098897	0.9517176	0.9894430	210.60326	1.061683
lambda_15,9	0.7604150	0.1296035	0.4523479	0.9425599	300.34728	1.062997
lambda_15,10	0.8050456	0.0956173	0.5745371	0.9534523	138.55998	1.105932
lambda_15,11	0.8920597	0.0380080	0.8043644	0.9485962	351.40101	1.039118
lambda_16,1	0.9421278	0.0191668	0.9000667	0.9724670	208.92800	1.064095
lambda_16,2	0.9411439	0.0237153	0.8907522	0.9750547	124.07967	1.111873
lambda_16,3	0.8351939	0.0547012	0.7126397	0.9193599	214.73030	1.057737
lambda_16,4	0.4191434	0.0963525	0.2484884	0.6175264	160.65087	1.079148
lambda_16,5	0.6282907	0.0897029	0.4332816	0.7918315	1008.59569	1.040825
lambda_16,6	0.7862294	0.0688950	0.6491310	0.8971596	105.94557	1.121189
lambda_16,7	0.9022215	0.0366548	0.8169642	0.9546635	200.81112	1.063489
lambda_16,8	0.9735510	0.0101090	0.9495959	0.9883571	434.32350	1.032997
lambda_16,9	0.7620444	0.1281475	0.4470717	0.9434700	317.01658	1.073965
lambda_16,10	0.8040233	0.0956785	0.5688547	0.9373838	302.65843	1.052554
lambda_16,11	0.8716386	0.0468670	0.7765350	0.9421794	135.90002	1.098197
lambda_17,1	0.9624583	0.0085323	0.9426968	0.9766861	382.21323	1.107040
lambda_17,2	0.9619263	0.0094726	0.9407064	0.9775890	659.61730	1.059985
lambda_17,3	0.8554770	0.0504325	0.7398987	0.9357461	514.18723	1.033796
lambda_17,4	0.4092818	0.0949406	0.2304426	0.6088671	1405.63350	1.059805
lambda_17,5	0.6319318	0.0958747	0.4354265	0.7999910	228.51192	1.060107
lambda_17,6	0.7964526	0.0575940	0.6688587	0.8958215	2569.79364	1.077478
lambda_17,7	0.8929857	0.0368647	0.8046846	0.9479373	291.17915	1.047218
lambda_17,8	0.9735606	0.0103381	0.9483043	0.9884493	1117.63541	1.050257
lambda_17,9	0.7594687	0.1281496	0.4494895	0.9399540	212.36517	1.081498
lambda_17,10	0.8076568	0.0936622	0.5657257	0.9400552	275.22813	1.055249

Table 23: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
lambda_17,11	0.8908726	0.0409064	0.7952682	0.9526969	241.20947	1.058969
lambda_18,1	0.9030537	0.0207963	0.8597490	0.9368009	89.69616	1.146571
lambda_18,2	0.9560652	0.0096247	0.9343289	0.9716971	422.57712	1.031033
lambda_18,3	0.8347878	0.0568527	0.7172530	0.9219742	128.35852	1.123176
lambda_18,4	0.4079275	0.0970496	0.2240710	0.6086895	314.89168	1.060650
lambda_18,5	0.6405742	0.0981557	0.4351637	0.8118254	139.85264	1.093184
lambda_18,6	0.7918100	0.0644718	0.6469077	0.8994131	351.41599	1.038220
lambda_18,7	0.8828275	0.0369232	0.7965839	0.9402870	540.79297	1.027903
lambda_18,8	0.9683239	0.0102812	0.9434255	0.9839353	559.69709	1.033897
lambda_18,9	0.7638137	0.1249640	0.4522419	0.9404468	313.46927	1.063405
lambda_18,10	0.8062729	0.0972911	0.5592118	0.9393052	201.39200	1.074763
lambda_18,11	0.8939677	0.0384967	0.8029427	0.9490663	251.59155	1.053152
lambda_19,1	0.9294453	0.0157291	0.8933411	0.9557097	2916.46370	1.079943
lambda_19,2	0.9459239	0.0123073	0.9181952	0.9655991	240.45929	1.053126
lambda_19,3	0.8525511	0.0500772	0.7394828	0.9337430	211.84899	1.127015
lambda_19,4	0.4140530	0.1031743	0.2310043	0.6611330	150.66204	1.084925
lambda_19,5	0.6327676	0.0969407	0.4065356	0.7970951	167.61124	1.077143
lambda_19,6	0.7993947	0.0645564	0.6495579	0.9002544	191.73305	1.068728
lambda_19,7	0.8924754	0.0349545	0.8097417	0.9452508	221.32774	1.058495
lambda_19,8	0.9666631	0.0098851	0.9460416	0.9815301	214.70072	1.060622
lambda_19,9	0.7624099	0.1302321	0.4506664	0.9431120	264.56111	1.069894
lambda_19,10	0.8105710	0.0960909	0.5723388	0.9380796	143.58093	1.098305
lambda_19,11	0.8925509	0.0396879	0.7950038	0.9506487	449.88596	1.031959

Table 24: Estimates for $\phi_{1,g,j}$, intercept parameter for function relating log consumption rate to log size, for each group g and prey type j

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
phi_1_1,1	0.7659752	0.2028328	0.4014004	1.1839550	165.02729	1.080451
phi_1_1,2	1.4769746	0.2035270	1.1006300	1.8684300	98.14200	1.144171
phi_1_1,3	0.4876005	0.2082155	0.1006914	0.8950385	145.59226	1.089568
phi_1_1,4	-0.4446200	0.3773857	-1.0759705	0.4065321	138.48661	1.102803
phi_1_1,5	0.3463177	0.2601657	-0.1519249	0.8283788	132.92797	1.099556
phi_1_1,6	0.1243001	0.1612477	-0.1874425	0.4548366	300.16886	1.048266
phi_1_1,7	0.4553574	0.2061898	0.0490599	0.8374059	159.52218	1.084159
phi_1_1,8	1.9239785	0.1723830	1.5952735	2.2443255	105.82993	1.125217
phi_1_1,9	-0.1647847	0.1894420	-0.5204934	0.2132460	280.74619	1.048698
phi_1_1,10	-0.1850804	0.2466416	-0.6255622	0.2938447	109.26196	1.122090
phi_1_1,11	0.9583978	0.2458664	0.5318031	1.4450477	104.51143	1.135942
phi_1_2,1	0.7718552	0.1572963	0.4798827	1.1037332	226.92673	1.063353
phi_1_2,2	1.6940125	0.1348058	1.4152885	1.9493242	240.96611	1.062829
phi_1_2,3	0.6243666	0.1717855	0.2718374	0.9562384	227.52277	1.060735
phi_1_2,4	-0.4753906	0.3646022	-1.0390740	0.3575714	120.16845	1.120353
phi_1_2,5	0.2940686	0.2272190	-0.1496326	0.7214051	119.61399	1.112515
phi_1_2,6	0.1561762	0.1562189	-0.1423871	0.4786373	190.60045	1.070816
phi_1_2,7	0.5626201	0.1909314	0.1932774	0.9388905	191.22483	1.070767

Table 24: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
phi_1_2,8	1.9508190	0.0867290	1.7705985	2.1171730	1066.69180	1.020808
phi_1_2,9	-0.0295818	0.1486244	-0.3039856	0.3229120	146.82702	1.089992
phi_1_2,10	-0.1091472	0.2431782	-0.5345874	0.3678635	96.23243	1.141124
phi_1_2,11	1.0137858	0.2226153	0.6256862	1.4541920	100.84062	1.142723
phi_1_3,1	0.7609913	0.1780552	0.4271682	1.0816120	127.71893	1.105645
phi_1_3,2	1.5137889	0.1338011	1.2650132	1.7937165	715.27236	1.131003
phi_1_3,3	0.6576751	0.1919997	0.2829916	1.0673765	141.00637	1.095320
phi_1_3,4	-0.5086855	0.3705912	-1.0873598	0.3552282	163.35060	1.203256
phi_1_3,5	0.4094847	0.2270531	-0.0347295	0.8339447	118.61751	1.113207
phi_1_3,6	0.0313950	0.1800023	-0.2762670	0.4012101	113.87742	1.114306
phi_1_3,7	0.5032506	0.1976611	0.1060670	0.9126016	218.27581	1.064908
phi_1_3,8	1.7355433	0.1341298	1.4027517	1.9697642	148.95492	1.089356
phi_1_3,9	-0.0798560	0.1618646	-0.3477537	0.2976843	114.40658	1.117414
phi_1_3,10	-0.2020603	0.2687553	-0.7221891	0.3104933	65.98029	1.221192
phi_1_3,11	1.0082140	0.1992350	0.6438134	1.4044527	160.27794	1.091635
phi_1_4,1	0.7938372	0.1827393	0.4579636	1.1272972	114.83599	1.118006
phi_1_4,2	1.4544628	0.1491720	1.1637643	1.7621575	508.15238	1.106505
phi_1_4,3	0.4900033	0.1816724	0.1257265	0.8420064	246.14807	1.058083
phi_1_4,4	-0.4510835	0.3738483	-1.0739960	0.3778604	128.88608	1.112202
phi_1_4,5	0.3166706	0.2465112	-0.1591261	0.7828522	121.47243	1.110560
phi_1_4,6	0.1812214	0.1673064	-0.1289819	0.5258180	148.38795	1.087291
phi_1_4,7	0.5254976	0.2137033	0.0800305	0.9479546	167.95061	1.078586
phi_1_4,8	1.7993778	0.1262317	1.5094800	2.0352620	194.76655	1.064697
phi_1_4,9	-0.1141806	0.1734401	-0.4315093	0.2471411	165.88361	1.083083
phi_1_4,10	-0.2928791	0.2501817	-0.7127046	0.2121873	83.15192	1.169789
phi_1_4,11	0.9221979	0.2082670	0.5487538	1.3191530	138.26015	1.101828
phi_1_5,1	0.7332271	0.1837263	0.3908670	1.0711522	141.86479	1.093020
phi_1_5,2	1.5448623	0.1517238	1.2452058	1.8464612	249.63896	1.064810
phi_1_5,3	0.7081035	0.2061270	0.3003298	1.1612385	171.37336	1.091074
phi_1_5,4	-0.4935974	0.3303597	-1.0100390	0.2629544	146.21315	1.110343
phi_1_5,5	0.2321205	0.2300205	-0.2241162	0.6498626	93.46059	1.147368
phi_1_5,6	0.1613556	0.1499459	-0.1086501	0.4853445	280.37525	1.059053
phi_1_5,7	0.5163264	0.2048937	0.1045148	0.9172284	237.15682	1.080137
phi_1_5,8	1.9474933	0.1145892	1.7331037	2.1873315	329.91969	1.043174
phi_1_5,9	-0.1620835	0.1630880	-0.4800966	0.1670863	244.98273	1.059993
phi_1_5,10	-0.2888421	0.2836126	-0.7961605	0.4406690	55.87563	1.277634
phi_1_5,11	0.9828320	0.2222840	0.5960918	1.4139155	100.60276	1.141018
phi_1_6,1	0.7513647	0.1711994	0.4269650	1.1023017	250.44668	1.057608
phi_1_6,2	1.6129188	0.1657006	1.3214355	1.9969930	169.83232	1.081468
phi_1_6,3	0.4701866	0.2035769	0.0924443	0.8683191	120.22668	1.110928
phi_1_6,4	-0.4536309	0.3818138	-1.0767947	0.4163382	125.66164	1.113794
phi_1_6,5	0.2423385	0.2345080	-0.2208387	0.6780506	127.08986	1.105851
phi_1_6,6	0.1118413	0.1468188	-0.1462581	0.4198182	175.53917	1.076848
phi_1_6,7	0.4105757	0.1903902	0.0340131	0.7840745	245.53321	1.065826
phi_1_6,8	1.8674678	0.1018858	1.6727500	2.0627547	298.22333	1.043390
phi_1_6,9	-0.2333283	0.1639561	-0.5139163	0.1070725	122.09675	1.110820
phi_1_6,10	-0.1305944	0.2505436	-0.5231158	0.4585900	63.31595	1.236627

Table 24: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
phi_1_6,11	1.0934691	0.2306642	0.6885172	1.5497572	116.20635	1.125004
phi_1_7,1	0.7853685	0.2167506	0.3711125	1.1746142	114.86582	1.116661
phi_1_7,2	1.4991568	0.1957484	1.1269778	1.9668800	170.38643	1.154049
phi_1_7,3	0.5435953	0.2014548	0.1373984	0.9426270	379.04140	1.147509
phi_1_7,4	-0.4668265	0.3820517	-1.1422048	0.3953920	103.41445	1.138760
phi_1_7,5	0.4496237	0.2450183	-0.0382468	0.9199962	153.90113	1.116757
phi_1_7,6	0.1775047	0.2019551	-0.1884461	0.6023786	150.38124	1.083404
phi_1_7,7	0.4249237	0.2235749	-0.0323489	0.8713347	272.89055	1.084251
phi_1_7,8	1.9735549	0.1567981	1.6814235	2.2595015	160.49199	1.081964
phi_1_7,9	-0.0719489	0.1884886	-0.4303823	0.3083770	240.02395	1.092530
phi_1_7,10	-0.1963586	0.2448267	-0.6409801	0.3010999	133.82709	1.101444
phi_1_7,11	0.9620458	0.2339388	0.5202231	1.4333817	158.05427	1.090202
phi_1_8,1	0.7704026	0.2218747	0.3469520	1.1904300	107.88890	1.123781
phi_1_8,2	1.4893493	0.1851366	1.1298887	1.8505555	310.11152	1.051389
phi_1_8,3	0.5521245	0.2237574	0.1406345	1.1129412	162.57182	1.124032
phi_1_8,4	-0.4736676	0.3781773	-1.0742210	0.3850458	138.31022	1.103308
phi_1_8,5	0.3475690	0.2588770	-0.2067535	0.8067591	109.58229	1.123241
phi_1_8,6	0.1768418	0.1992226	-0.1877980	0.5957204	204.00265	1.063669
phi_1_8,7	0.4964733	0.2246570	0.0566090	0.9733806	210.71747	1.076453
phi_1_8,8	1.9140611	0.1752410	1.5090700	2.2641655	119.39341	1.113376
phi_1_8,9	-0.1351309	0.1929669	-0.5092205	0.2504914	355.57029	1.043868
phi_1_8,10	-0.1987862	0.2596906	-0.6717702	0.2940567	78.92381	1.178840
phi_1_8,11	0.9408036	0.2771598	0.3108150	1.4575642	65.37770	1.228859
phi_1_9,1	0.7883717	0.1998245	0.4271159	1.1978952	171.36511	1.078279
phi_1_9,2	1.4991546	0.1890014	1.1328318	1.8496820	142.83662	1.097388
phi_1_9,3	0.5533231	0.2304634	0.1409248	0.9954700	112.88000	1.120197
phi_1_9,4	-0.4424040	0.3925523	-1.0990270	0.4073141	100.52396	1.143317
phi_1_9,5	0.3357933	0.2488906	-0.1528323	0.8107100	151.59090	1.086452
phi_1_9,6	0.1867661	0.1985982	-0.1918559	0.5884502	207.42974	1.064936
phi_1_9,7	0.4938697	0.2333257	0.0412332	1.0041915	154.54418	1.158009
phi_1_9,8	1.9125481	0.1749643	1.5995652	2.3015490	123.97426	1.107107
phi_1_9,9	-0.1459269	0.1886519	-0.5057063	0.2337465	329.19032	1.046332
phi_1_9,10	-0.2289627	0.2480767	-0.6673328	0.2485619	105.79619	1.130737
phi_1_9,11	0.9388780	0.2331621	0.5010342	1.4063102	185.21273	1.080918
phi_1_10,1	0.7774123	0.1724837	0.4525276	1.1250478	189.57806	1.070005
phi_1_10,2	1.4910428	0.1891429	1.1299035	1.8457765	135.90651	1.094293
phi_1_10,3	0.5644417	0.2065892	0.1586122	0.9676169	225.22189	1.061297
phi_1_10,4	-0.4811826	0.3676810	-1.1372600	0.3429579	93.88791	1.149900
phi_1_10,5	0.3259765	0.2787908	-0.3049817	0.8004158	93.90293	1.191293
phi_1_10,6	0.3044076	0.1994683	-0.0329753	0.7268291	107.64291	1.121639
phi_1_10,7	0.4813622	0.2174185	0.0507381	0.9308934	243.38734	1.058636
phi_1_10,8	1.7775958	0.1331468	1.5002860	2.0241022	311.45448	1.048180
phi_1_10,9	-0.1553340	0.1826579	-0.5022592	0.2151534	315.33318	1.041490
phi_1_10,10	-0.1876148	0.2611843	-0.6365458	0.3617360	84.35914	1.166916
phi_1_10,11	0.9554036	0.2409687	0.5285011	1.4375965	124.79535	1.114138
phi_1_11,1	0.7692728	0.1736006	0.4499860	1.1222908	159.96962	1.082021

Table 24: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
phi_1_11,2	1.4666419	0.1313192	1.2248380	1.7414110	347.83217	1.054174
phi_1_11,3	0.4525836	0.1950313	0.1060440	0.8306987	114.14542	1.119730
phi_1_11,4	-0.4428161	0.3903036	-1.1673100	0.3920409	77.92296	1.191310
phi_1_11,5	0.2959525	0.2405133	-0.1770690	0.7313187	115.10662	1.117235
phi_1_11,6	0.1311686	0.1651048	-0.1375782	0.4987059	163.03112	1.083906
phi_1_11,7	0.6019784	0.2248202	0.1641415	1.0513990	217.01852	1.148076
phi_1_11,8	2.0993838	0.1055885	1.8906577	2.3054145	287.85938	1.045341
phi_1_11,9	-0.2093920	0.1881591	-0.5628153	0.1702650	247.22725	1.105736
phi_1_11,10	-0.2235297	0.2535681	-0.6717681	0.3274470	65.15410	1.225595
phi_1_11,11	0.9113480	0.2255055	0.5035281	1.3588615	139.36155	1.108990
phi_1_12,1	0.8254233	0.1661072	0.5297755	1.1745725	213.33406	1.092571
phi_1_12,2	1.6194914	0.1468763	1.3534863	1.9067100	154.56234	1.097473
phi_1_12,3	0.4798649	0.1857739	0.1190366	0.8541454	266.27518	1.067568
phi_1_12,4	-0.3397427	0.3960998	-0.9693417	0.5336303	126.20722	1.116642
phi_1_12,5	0.4059009	0.2272483	-0.0664665	0.8086975	139.98452	1.093868
phi_1_12,6	0.1875640	0.1844681	-0.1115108	0.5570056	93.31400	1.148863
phi_1_12,7	0.3472073	0.2018397	-0.0361155	0.7581304	193.41666	1.093342
phi_1_12,8	1.9749268	0.1098067	1.7792865	2.1733362	118.41454	1.110204
phi_1_12,9	-0.2363584	0.1812269	-0.5684455	0.1315013	227.52746	1.061685
phi_1_12,10	-0.1018884	0.2293673	-0.5072680	0.3478656	105.77439	1.133294
phi_1_12,11	0.9861853	0.2195699	0.5910256	1.4311097	145.59045	1.096853
phi_1_13,1	0.6456188	0.1693751	0.3333005	0.9952644	193.75305	1.068973
phi_1_13,2	1.4938316	0.1466820	1.2227882	1.8055520	482.30637	1.049749
phi_1_13,3	0.4429205	0.1821042	0.1266687	0.7954889	93.62868	1.147823
phi_1_13,4	-0.4274910	0.3718893	-1.0284725	0.3905948	104.35488	1.139259
phi_1_13,5	0.4720015	0.2036150	0.0696412	0.8565574	147.57762	1.093219
phi_1_13,6	0.2140262	0.1689030	-0.0911337	0.5863897	196.23362	1.068175
phi_1_13,7	0.4901363	0.2111413	0.0968187	0.9117752	172.53842	1.080059
phi_1_13,8	1.9027009	0.1015609	1.7005532	2.1060920	280.35691	1.071307
phi_1_13,9	-0.1113148	0.1828524	-0.4672602	0.2563771	194.67445	1.065972
phi_1_13,10	-0.1867050	0.2417530	-0.5724319	0.2934087	80.08169	1.175509
phi_1_13,11	0.8987768	0.2301209	0.4343100	1.3312037	80.43537	1.182204
phi_1_14,1	0.8521997	0.1799488	0.5199024	1.2192945	197.23876	1.068298
phi_1_14,2	1.4741560	0.1539037	1.1938458	1.7931037	272.50941	1.066573
phi_1_14,3	0.7420859	0.1980927	0.3433107	1.1463300	167.24496	1.165983
phi_1_14,4	-0.4534235	0.3818965	-1.0694512	0.4069768	104.86365	1.134877
phi_1_14,5	0.3713452	0.2569314	-0.1262975	0.8567649	111.53275	1.120296
phi_1_14,6	0.2698951	0.1648787	-0.0092394	0.6119632	159.09881	1.083059
phi_1_14,7	0.5726530	0.2128543	0.1451730	0.9619062	125.74411	1.104534
phi_1_14,8	1.9343035	0.1208201	1.6866485	2.1730950	589.06532	1.124406
phi_1_14,9	-0.1321563	0.1837119	-0.4696505	0.2389306	198.14162	1.064359
phi_1_14,10	-0.1151810	0.2577383	-0.5379306	0.4181080	83.44423	1.167210
phi_1_14,11	0.9444101	0.2359922	0.5141351	1.4205740	125.41355	1.117019
phi_1_15,1	0.8371377	0.1938914	0.4848534	1.2557667	270.15172	1.120179
phi_1_15,2	1.4527887	0.1843089	1.0807765	1.7990525	260.83701	1.058744
phi_1_15,3	0.6170162	0.2118755	0.2045904	1.0450632	256.25765	1.054199
phi_1_15,4	-0.4450838	0.3856830	-1.0885472	0.4321615	110.29182	1.122440

Table 24: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
phi_1_15,5	0.3332500	0.2516025	-0.1670173	0.8236349	156.45669	1.116316
phi_1_15,6	0.1703569	0.2061672	-0.2482845	0.5797748	137.57934	1.093700
phi_1_15,7	0.4824902	0.2313211	0.0123349	0.9595709	145.17683	1.090839
phi_1_15,8	1.9184386	0.1504611	1.6162715	2.2022250	877.26623	1.035685
phi_1_15,9	-0.1445360	0.2017728	-0.5326018	0.2579072	213.27392	1.062329
phi_1_15,10	-0.1980107	0.2483849	-0.6393430	0.3164511	104.40819	1.129323
phi_1_15,11	0.9656298	0.2574376	0.4217300	1.4343418	76.71966	1.190825
phi_1_16,1	0.8450499	0.1983895	0.4689426	1.2711077	234.91471	1.057395
phi_1_16,2	1.5039662	0.1822459	1.1186245	1.8445790	285.53437	1.049485
phi_1_16,3	0.4256329	0.2132914	0.0091472	0.8344842	142.04080	1.138000
phi_1_16,4	-0.4307991	0.3802230	-1.0769053	0.4048129	112.45127	1.125049
phi_1_16,5	0.3462051	0.2467540	-0.1686201	0.8418173	205.51988	1.092060
phi_1_16,6	0.1774644	0.1955315	-0.2007820	0.5821211	342.88690	1.121400
phi_1_16,7	0.4794061	0.2297234	0.0055997	0.9219068	140.81836	1.091695
phi_1_16,8	1.8946294	0.1599227	1.5903728	2.2171212	235.78398	1.058256
phi_1_16,9	-0.1268285	0.1933382	-0.4963680	0.2373921	200.37640	1.133957
phi_1_16,10	-0.1949790	0.2432572	-0.6193938	0.3176818	128.64355	1.103984
phi_1_16,11	0.9305256	0.2509875	0.3978638	1.4285645	100.23298	1.143126
phi_1_17,1	0.7469526	0.1795981	0.4118830	1.1107802	196.11263	1.137291
phi_1_17,2	1.3169382	0.1569667	1.0087328	1.6397215	210.42181	1.065779
phi_1_17,3	0.5579990	0.2135239	0.1285839	0.9828734	285.23888	1.069305
phi_1_17,4	-0.4430161	0.3870119	-1.0634905	0.4062266	106.62945	1.138049
phi_1_17,5	0.3446815	0.2635209	-0.2604850	0.8052590	100.15207	1.135153
phi_1_17,6	0.2136746	0.2000299	-0.1787408	0.6118847	77.32572	1.177922
phi_1_17,7	0.4838378	0.2229795	0.0177363	0.9284751	200.36857	1.069408
phi_1_17,8	1.9187177	0.1579816	1.6004145	2.2206037	215.79473	1.059834
phi_1_17,9	-0.1369846	0.1982652	-0.5294866	0.2595923	221.12076	1.062242
phi_1_17,10	-0.1960322	0.2466123	-0.6237984	0.3128558	109.53573	1.123434
phi_1_17,11	0.9709028	0.2358509	0.5325218	1.4542247	152.02050	1.096266
phi_1_18,1	0.7009278	0.1918109	0.3504840	1.0696447	136.98832	1.096397
phi_1_18,2	1.3875935	0.1857441	1.0264563	1.7923800	116.09032	1.120059
phi_1_18,3	0.5530460	0.2176146	0.1533144	0.9722866	120.37865	1.110037
phi_1_18,4	-0.4392651	0.3791730	-1.0684997	0.3870354	115.18409	1.123314
phi_1_18,5	0.3599265	0.2524150	-0.1580768	0.8040949	122.62327	1.110604
phi_1_18,6	0.1730836	0.1953735	-0.1898395	0.5829949	207.37988	1.134260
phi_1_18,7	0.4879143	0.2233974	0.0244547	0.9257330	228.64511	1.145879
phi_1_18,8	1.8769026	0.1683975	1.5149263	2.1681120	88.17897	1.151776
phi_1_18,9	-0.1343176	0.1967510	-0.5102493	0.2726261	186.90655	1.080401
phi_1_18,10	-0.1926894	0.2643019	-0.6948583	0.3127870	70.24384	1.205973
phi_1_18,11	0.9704311	0.2424113	0.5369967	1.4412857	105.28123	1.136000
phi_1_19,1	0.7413396	0.2067687	0.3682019	1.1590728	163.77930	1.080645
phi_1_19,2	1.3943578	0.1924266	1.0493102	1.7522352	111.73264	1.126053
phi_1_19,3	0.5593151	0.2301580	0.1301316	1.1060870	148.61440	1.102585
phi_1_19,4	-0.4588413	0.3746042	-1.0556313	0.3981168	144.58748	1.098884
phi_1_19,5	0.3468144	0.2588867	-0.1652353	0.8070331	96.43131	1.139640
phi_1_19,6	0.1798092	0.1926598	-0.1821187	0.5779238	239.68084	1.054566
phi_1_19,7	0.5169177	0.2141838	0.0883552	0.9457073	214.93554	1.096274

Table 24: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
phi_1_19,8	2.0543246	0.1551293	1.7673950	2.4318130	295.87534	1.177291
phi_1_19,9	-0.1357329	0.1869941	-0.5058656	0.2457510	384.79386	1.063839
phi_1_19,10	-0.1870667	0.2544212	-0.6513611	0.2992747	98.18836	1.138349
phi_1_19,11	0.9687739	0.2395236	0.5227998	1.4304975	162.99572	1.091652

Table 25: Estimates for $\psi_{1,g,j}$, intercept parameter for function relating log handling time to log size, for each group g and prey type j

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
psi_1_1,1	2.890734	0.1681941	2.565545	3.216696	222.33812	1.059999
psi_1_1,2	2.527872	0.1729364	2.199400	2.870648	248.66323	1.072558
psi_1_1,3	3.023555	0.2144098	2.624488	3.438648	143.16165	1.095951
psi_1_1,4	2.519484	0.4616579	1.673201	3.455283	87.70776	1.166963
psi_1_1,5	2.401594	0.2228583	1.947933	2.824483	166.10931	1.141508
psi_1_1,6	2.615435	0.1852443	2.241014	2.991951	306.80946	1.042973
psi_1_1,7	2.669283	0.1956729	2.275524	3.055082	241.55433	1.059711
psi_1_1,8	2.450514	0.1478462	2.152875	2.756580	1374.83262	1.127522
psi_1_1,9	3.484506	0.2695266	2.877985	4.011906	122.40538	1.159358
psi_1_1,10	3.416034	0.3657450	2.670523	4.142557	97.10103	1.193928
psi_1_1,11	2.801476	0.1780603	2.450822	3.160512	298.94667	1.042532
psi_1_2,1	2.791076	0.1017887	2.586585	2.971727	116.38171	1.115158
psi_1_2,2	2.430354	0.0949779	2.249939	2.618695	357.21243	1.117286
psi_1_2,3	2.987369	0.1989560	2.534075	3.360777	91.87522	1.148729
psi_1_2,4	2.608734	0.4698076	1.792584	3.532604	68.28816	1.224562
psi_1_2,5	2.456201	0.1897627	2.079839	2.820903	111.69421	1.128943
psi_1_2,6	2.652157	0.1560611	2.333417	2.957515	277.74980	1.056405
psi_1_2,7	2.712829	0.1723899	2.381305	3.053446	210.68536	1.063690
psi_1_2,8	2.527975	0.0713003	2.384068	2.666485	375.31571	1.046290
psi_1_2,9	3.415501	0.2132525	2.987880	3.850440	131.36791	1.103237
psi_1_2,10	3.391767	0.3512618	2.713387	4.121175	104.23077	1.136469
psi_1_2,11	2.873012	0.1224843	2.630140	3.121250	222.23091	1.070835
psi_1_3,1	2.977718	0.1034570	2.773330	3.180688	154.09940	1.128170
psi_1_3,2	2.543995	0.0955243	2.364600	2.738173	270.41803	1.055687
psi_1_3,3	2.905204	0.2113720	2.535330	3.301696	78.45986	1.185679
psi_1_3,4	2.544958	0.4626987	1.716768	3.480063	75.75190	1.196501
psi_1_3,5	2.390081	0.1868148	2.032515	2.747321	114.35610	1.124638
psi_1_3,6	2.922060	0.1593153	2.619069	3.255803	311.03992	1.047981
psi_1_3,7	2.647931	0.1849935	2.308934	3.026511	191.62358	1.073753
psi_1_3,8	2.554964	0.0926045	2.388479	2.739050	243.77693	1.052327
psi_1_3,9	3.678885	0.2179686	3.252073	4.117700	118.94302	1.111224
psi_1_3,10	3.454918	0.3507078	2.836511	4.176702	96.52917	1.146468
psi_1_3,11	2.884728	0.1086116	2.670029	3.100452	159.77894	1.077359
psi_1_4,1	2.800537	0.1109083	2.600812	3.020276	197.88572	1.070838
psi_1_4,2	2.634763	0.1241180	2.405236	2.873232	96.93894	1.140195
psi_1_4,3	3.157954	0.1832431	2.819453	3.531172	136.20773	1.137851

Table 25: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
psi_1_4,4	2.508497	0.4790976	1.669010	3.446833	73.40247	1.204317
psi_1_4,5	2.493206	0.2106846	2.070132	2.904546	124.38537	1.115042
psi_1_4,6	2.658774	0.1728526	2.332590	3.012883	203.19747	1.076788
psi_1_4,7	2.564497	0.1843816	2.193855	2.935875	387.49762	1.071508
psi_1_4,8	2.521111	0.0984545	2.324957	2.714841	444.23743	1.160508
psi_1_4,9	3.623715	0.2478364	3.112010	4.097751	129.27594	1.101366
psi_1_4,10	3.370005	0.3593451	2.738170	4.132001	111.14140	1.128976
psi_1_4,11	2.910179	0.1131479	2.689605	3.137181	247.92891	1.110351
psi_1_5,1	2.897571	0.1218842	2.655640	3.133219	235.75336	1.055791
psi_1_5,2	2.499668	0.1189106	2.290920	2.728566	117.72141	1.121902
psi_1_5,3	2.983925	0.2081290	2.615039	3.403116	96.11056	1.143274
psi_1_5,4	2.509504	0.4421025	1.699482	3.431095	71.44469	1.212500
psi_1_5,5	2.361975	0.1878339	1.998123	2.723495	113.17358	1.127511
psi_1_5,6	2.712295	0.1588253	2.404162	3.038550	276.21687	1.056247
psi_1_5,7	2.645665	0.1825549	2.275786	2.997615	245.11358	1.065689
psi_1_5,8	2.380611	0.0825406	2.223170	2.549008	387.08077	1.057117
psi_1_5,9	3.605611	0.2409874	3.145882	4.091147	129.14743	1.138529
psi_1_5,10	3.443200	0.3481476	2.777923	4.144630	118.49257	1.158002
psi_1_5,11	2.772694	0.1314314	2.514767	3.034828	148.99972	1.084179
psi_1_6,1	2.847751	0.1082528	2.638047	3.068764	256.88284	1.055153
psi_1_6,2	2.438760	0.1193036	2.210250	2.673120	295.91683	1.057757
psi_1_6,3	3.083609	0.2120534	2.656526	3.489405	97.41516	1.150342
psi_1_6,4	2.625863	0.4907869	1.761344	3.591614	72.94688	1.206760
psi_1_6,5	2.376992	0.1960383	2.001916	2.744070	102.15908	1.137104
psi_1_6,6	2.805740	0.1546857	2.501609	3.113853	257.60853	1.061430
psi_1_6,7	2.688645	0.1844644	2.319468	3.057309	351.08279	1.058198
psi_1_6,8	2.499634	0.0727149	2.351548	2.637094	613.26867	1.033244
psi_1_6,9	3.559322	0.2216283	3.137405	4.004177	149.85964	1.105463
psi_1_6,10	3.493936	0.3432486	2.868648	4.192996	110.46110	1.128851
psi_1_6,11	2.668457	0.1368604	2.399909	2.934252	148.68471	1.085146
psi_1_7,1	2.887132	0.1732448	2.505248	3.218524	174.46186	1.073625
psi_1_7,2	2.544067	0.1693060	2.204488	2.867977	262.77604	1.054227
psi_1_7,3	2.979222	0.2181950	2.603919	3.410778	122.17187	1.113309
psi_1_7,4	2.512123	0.4722977	1.658683	3.446744	87.01200	1.171013
psi_1_7,5	2.383728	0.2230399	1.971068	2.806121	103.30625	1.137980
psi_1_7,6	2.670128	0.2115084	2.250217	3.078203	215.80074	1.062452
psi_1_7,7	2.615074	0.2078721	2.200074	3.023924	299.30562	1.072240
psi_1_7,8	2.357454	0.1408465	2.085878	2.632433	422.73813	1.099266
psi_1_7,9	3.598933	0.2484236	3.117361	4.099882	209.84023	1.063651
psi_1_7,10	3.419242	0.3558901	2.750356	4.164438	138.32221	1.105916
psi_1_7,11	2.803685	0.1796690	2.451709	3.155838	188.30207	1.066572
psi_1_8,1	2.889100	0.1743287	2.541968	3.228613	264.48915	1.047149
psi_1_8,2	2.510675	0.1813181	2.175354	2.873454	109.19485	1.122924
psi_1_8,3	3.005561	0.2240180	2.616165	3.456087	116.65634	1.117941
psi_1_8,4	2.514817	0.4721919	1.674456	3.451101	79.35167	1.190621
psi_1_8,5	2.391228	0.2241511	1.955487	2.849614	168.19035	1.081397
psi_1_8,6	2.670431	0.2142318	2.240880	3.084279	257.09314	1.078404

Table 25: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
psi_1_8,7	2.596041	0.2008890	2.193318	3.003633	374.61750	1.113718
psi_1_8,8	2.445632	0.1618633	2.142408	2.737036	126.50856	1.103070
psi_1_8,9	3.570440	0.2578384	3.092307	4.086777	163.06108	1.081012
psi_1_8,10	3.413981	0.3626310	2.748634	4.159323	109.05836	1.133374
psi_1_8,11	2.796949	0.1777854	2.448039	3.162056	365.32788	1.083804
psi_1_9,1	2.853469	0.1432989	2.564666	3.145028	333.89713	1.045886
psi_1_9,2	2.530312	0.1667808	2.204600	2.855719	454.95098	1.031065
psi_1_9,3	3.076618	0.2296407	2.605710	3.513819	135.27980	1.122256
psi_1_9,4	2.526273	0.4728465	1.663928	3.471942	81.66392	1.180693
psi_1_9,5	2.386817	0.2239861	1.950749	2.844416	149.42964	1.094350
psi_1_9,6	2.660491	0.2201445	2.216557	3.084223	134.63359	1.097321
psi_1_9,7	2.587202	0.1985433	2.197442	3.008572	326.65400	1.051584
psi_1_9,8	2.451613	0.1588325	2.137926	2.759946	385.47421	1.036369
psi_1_9,9	3.545965	0.2452185	3.057635	4.025476	207.23844	1.064161
psi_1_9,10	3.392489	0.3507637	2.765314	4.127671	130.34928	1.107181
psi_1_9,11	2.848092	0.1752740	2.506165	3.210424	219.59197	1.058192
psi_1_10,1	2.795134	0.1183321	2.575036	3.015312	107.74806	1.126893
psi_1_10,2	2.522461	0.1762136	2.178976	2.872243	236.38312	1.060485
psi_1_10,3	3.159513	0.2285147	2.717380	3.609051	103.07860	1.134699
psi_1_10,4	2.432167	0.4571009	1.622344	3.361370	71.58951	1.208660
psi_1_10,5	2.383735	0.2226250	1.953869	2.820313	158.53249	1.089524
psi_1_10,6	2.555578	0.2022219	2.153095	2.955795	249.97776	1.056614
psi_1_10,7	2.611092	0.1986907	2.214400	2.999087	234.62188	1.125671
psi_1_10,8	2.512671	0.1086507	2.300856	2.725335	570.35030	1.039104
psi_1_10,9	3.569305	0.2540838	3.099340	4.075485	134.70504	1.096755
psi_1_10,10	3.538933	0.3606922	2.889041	4.268298	108.83329	1.127849
psi_1_10,11	2.896711	0.1655398	2.566340	3.202478	144.36318	1.086011
psi_1_11,1	2.949962	0.1086426	2.731721	3.171165	264.74461	1.052262
psi_1_11,2	2.455977	0.1037399	2.253532	2.665685	399.61824	1.043964
psi_1_11,3	2.896996	0.1985679	2.530252	3.281947	109.95226	1.125676
psi_1_11,4	2.493214	0.4586641	1.651431	3.409187	80.48830	1.182536
psi_1_11,5	2.295127	0.1983732	1.892095	2.672692	150.12838	1.100001
psi_1_11,6	2.557050	0.1790907	2.202180	2.915764	198.95527	1.069920
psi_1_11,7	2.146129	0.2020297	1.763722	2.538772	186.35013	1.071980
psi_1_11,8	2.276948	0.0806964	2.115848	2.421717	201.31914	1.061321
psi_1_11,9	3.640107	0.2723494	2.944053	4.177005	122.05968	1.110870
psi_1_11,10	3.244550	0.3443253	2.605048	3.966788	118.18728	1.118391
psi_1_11,11	2.718949	0.1306252	2.465660	2.969963	154.89498	1.081902
psi_1_12,1	2.874388	0.1090918	2.654783	3.082200	127.78412	1.104760
psi_1_12,2	2.376383	0.1119658	2.161435	2.603575	609.34999	1.082407
psi_1_12,3	3.052255	0.2088927	2.682349	3.458212	96.84936	1.144024
psi_1_12,4	2.582565	0.4833494	1.720649	3.560254	73.59400	1.206058
psi_1_12,5	2.396828	0.2044083	1.984900	2.789216	130.40555	1.108937
psi_1_12,6	2.558436	0.1631391	2.230085	2.896101	292.23698	1.109012
psi_1_12,7	2.669131	0.1743067	2.335397	3.017461	241.60788	1.058026
psi_1_12,8	2.309166	0.0825883	2.146237	2.463153	480.57992	1.030537
psi_1_12,9	3.714263	0.2517304	3.256759	4.231023	162.37792	1.082772

Table 25: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
psi_1_12,10	3.376790	0.3390967	2.757910	4.072922	126.21037	1.111782
psi_1_12,11	2.757217	0.1265203	2.519186	3.002898	151.65828	1.084513
psi_1_13,1	2.906964	0.1079648	2.687116	3.110771	124.71232	1.108177
psi_1_13,2	2.549263	0.1188539	2.312573	2.787785	320.55573	1.131658
psi_1_13,3	3.070720	0.1774381	2.735070	3.430355	233.37024	1.065203
psi_1_13,4	2.453323	0.4527330	1.640045	3.368144	79.30997	1.186264
psi_1_13,5	2.316095	0.1765145	1.975686	2.677334	151.21228	1.092645
psi_1_13,6	2.715231	0.1601227	2.366090	3.041901	308.31437	1.148414
psi_1_13,7	2.656069	0.1871585	2.295812	3.041237	254.21006	1.054439
psi_1_13,8	2.589271	0.0814947	2.431633	2.746588	298.65894	1.048912
psi_1_13,9	3.515706	0.2371611	3.063936	3.990283	174.29423	1.075354
psi_1_13,10	3.387989	0.3457842	2.778256	4.112190	106.49588	1.135169
psi_1_13,11	2.711812	0.1179352	2.489238	2.941390	171.05329	1.076282
psi_1_14,1	2.847920	0.1145632	2.641194	3.066927	126.61763	1.106737
psi_1_14,2	2.387144	0.1160223	2.149880	2.620004	625.52579	1.067236
psi_1_14,3	2.905812	0.2083463	2.529435	3.304144	92.83944	1.150314
psi_1_14,4	2.460581	0.4755288	1.611917	3.453680	78.59625	1.188876
psi_1_14,5	2.434862	0.2081011	2.029480	2.841323	125.73359	1.117088
psi_1_14,6	2.698179	0.1690975	2.340387	3.031427	322.99884	1.104693
psi_1_14,7	2.567257	0.1859331	2.216526	2.955340	264.80082	1.055527
psi_1_14,8	2.449315	0.0957318	2.254920	2.635922	700.43702	1.051697
psi_1_14,9	3.574863	0.2552695	3.038922	4.070422	131.30254	1.136097
psi_1_14,10	3.450555	0.3716368	2.726713	4.180116	85.90040	1.167568
psi_1_14,11	2.837069	0.1555964	2.526119	3.136800	177.67875	1.070206
psi_1_15,1	3.002254	0.1431509	2.723509	3.277357	120.47523	1.109113
psi_1_15,2	2.601400	0.1645572	2.277707	2.949351	938.17930	1.133514
psi_1_15,3	2.948825	0.2208604	2.543674	3.382703	157.10058	1.091767
psi_1_15,4	2.517131	0.4802532	1.674405	3.459551	72.21117	1.209535
psi_1_15,5	2.402919	0.2353844	1.925619	2.820727	117.45466	1.112065
psi_1_15,6	2.684045	0.2109025	2.231178	3.093238	214.93677	1.074180
psi_1_15,7	2.595124	0.2029745	2.196657	2.994783	322.63900	1.046574
psi_1_15,8	2.447287	0.1465147	2.149017	2.736119	2632.30197	1.106928
psi_1_15,9	3.559843	0.2768056	2.959052	4.098161	123.02922	1.107162
psi_1_15,10	3.406765	0.3662738	2.698350	4.139475	98.27747	1.148964
psi_1_15,11	2.812489	0.1790220	2.470468	3.162604	294.89113	1.043244
psi_1_16,1	2.834927	0.1675056	2.507608	3.154370	100.85604	1.132536
psi_1_16,2	2.509933	0.1873122	2.129160	2.876931	158.55335	1.083003
psi_1_16,3	2.958144	0.2375553	2.508990	3.391043	67.45611	1.221523
psi_1_16,4	2.522347	0.4804511	1.673116	3.500383	73.77996	1.202621
psi_1_16,5	2.388941	0.2232720	1.941446	2.820678	194.83563	1.073387
psi_1_16,6	2.684905	0.2023067	2.269677	3.081267	599.79119	1.083968
psi_1_16,7	2.615195	0.2064511	2.212357	2.997927	225.20799	1.060252
psi_1_16,8	2.442867	0.1543945	2.143954	2.757515	562.79069	1.044714
psi_1_16,9	3.567104	0.2586715	3.094160	4.071197	158.72456	1.083929
psi_1_16,10	3.419256	0.3669196	2.723748	4.160274	98.61052	1.146601
psi_1_16,11	2.798461	0.1712395	2.467035	3.148516	196.35679	1.062564

Table 25: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
psi_1_17,1	2.913917	0.1173280	2.699159	3.135433	144.32792	1.092119
psi_1_17,2	2.685979	0.1205764	2.461794	2.921772	112.44322	1.117063
psi_1_17,3	3.008358	0.2248424	2.585581	3.471546	129.03673	1.102609
psi_1_17,4	2.519594	0.4737888	1.678028	3.499812	75.87758	1.196662
psi_1_17,5	2.395717	0.2295830	1.949712	2.837880	147.17516	1.093896
psi_1_17,6	2.718822	0.1932646	2.336006	3.097618	287.22391	1.049056
psi_1_17,7	2.680182	0.1921958	2.284114	3.055457	404.85966	1.039781
psi_1_17,8	2.457476	0.1592927	2.122216	2.760935	294.59433	1.123137
psi_1_17,9	3.581443	0.2511625	3.101507	4.071964	169.72477	1.115088
psi_1_17,10	3.420122	0.3539424	2.769477	4.148206	134.52749	1.103859
psi_1_17,11	2.810590	0.1808462	2.447314	3.165163	273.00340	1.069796
psi_1_18,1	2.900780	0.1167366	2.678516	3.118098	134.32745	1.101883
psi_1_18,2	2.685732	0.1280319	2.459007	2.941911	143.13650	1.099359
psi_1_18,3	3.005029	0.2256198	2.596950	3.441511	116.96357	1.116380
psi_1_18,4	2.510904	0.4765721	1.667748	3.495047	75.00103	1.199829
psi_1_18,5	2.378372	0.2338570	1.933860	2.828711	141.59533	1.103079
psi_1_18,6	2.664641	0.2022649	2.267825	3.072710	346.79789	1.048551
psi_1_18,7	2.581860	0.2004134	2.208564	3.001531	273.16395	1.055964
psi_1_18,8	2.408346	0.1305975	2.151236	2.660101	1065.07849	1.070555
psi_1_18,9	3.582121	0.2507997	3.077864	4.089480	215.43232	1.164775
psi_1_18,10	3.437781	0.3506135	2.808524	4.150405	111.24062	1.123393
psi_1_18,11	2.812829	0.1864569	2.467745	3.233261	183.48028	1.070201
psi_1_19,1	2.785160	0.1480476	2.519623	3.067451	89.78410	1.154093
psi_1_19,2	2.421254	0.1369559	2.149608	2.692998	683.40346	1.046992
psi_1_19,3	3.051782	0.2224906	2.633067	3.506241	210.53112	1.073197
psi_1_19,4	2.522311	0.4685216	1.671994	3.470173	76.95871	1.196354
psi_1_19,5	2.382796	0.2289828	1.953545	2.830164	149.50004	1.093269
psi_1_19,6	2.650808	0.2099309	2.247498	3.068242	159.72080	1.082175
psi_1_19,7	2.560213	0.1991797	2.171092	2.955272	249.93526	1.052998
psi_1_19,8	2.264700	0.1308319	1.991970	2.512326	398.95207	1.054146
psi_1_19,9	3.569625	0.2726373	2.966353	4.105915	117.94828	1.111575
psi_1_19,10	3.408377	0.3586337	2.679520	4.154067	110.94952	1.125938
psi_1_19,11	2.802177	0.1755234	2.437587	3.146533	301.71384	1.041327

Table 26: Estimates for $\eta_{g,j}$, proportional allocation of effort to prey type j, for each group level g

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
eta_1,1	0.1576732	0.0549612	0.0636266	0.2739826	409.68801	1.033886
eta_1,2	0.0699478	0.0387737	0.0170829	0.1700215	149.30820	1.086115
eta_1,3	0.0436703	0.0287787	0.0048192	0.1123387	197.85670	1.065039
eta_1,4	0.0230828	0.0193101	0.0010122	0.0730568	889.73010	1.063186
eta_1,5	0.1435198	0.0505874	0.0574968	0.2565142	1983.68922	1.046727
eta_1,6	0.1744261	0.0610624	0.0733849	0.3119931	298.64764	1.041200
eta_1,7	0.2118986	0.0648928	0.0985278	0.3536421	257.42153	1.048944
eta_1,8	0.0503231	0.0326816	0.0065211	0.1291980	581.44785	1.029088
eta_1,9	0.0293522	0.0234017	0.0028170	0.0880229	190.05397	1.065361

Table 26: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
eta_1,10	0.0101891	0.0139256	0.0000102	0.0466152	103.30893	1.128281
eta_1,11	0.0859169	0.0380877	0.0257529	0.1751228	958.73172	1.031562
eta_2,1	0.1570638	0.0188531	0.1221970	0.1908533	120.43792	1.113561
eta_2,2	0.0927945	0.0140690	0.0680979	0.1209231	206.21768	1.062782
eta_2,3	0.0874834	0.0126204	0.0637268	0.1142209	2512.14879	1.023329
eta_2,4	0.0564483	0.0087532	0.0404532	0.0751789	648.04105	1.044175
eta_2,5	0.0981305	0.0116015	0.0762635	0.1230274	1551.59022	1.044231
eta_2,6	0.0855830	0.0119000	0.0638587	0.1109142	451.71890	1.029007
eta_2,7	0.1632849	0.0200862	0.1290727	0.2040829	123.81794	1.103494
eta_2,8	0.0691624	0.0132902	0.0455548	0.0984482	1348.31684	1.117956
eta_2,9	0.0623820	0.0103355	0.0445188	0.0848948	555.19302	1.027169
eta_2,10	0.0097687	0.0035313	0.0043003	0.0179665	588.65197	1.027989
eta_2,11	0.1178986	0.0144999	0.0887863	0.1474973	673.84052	1.050687
eta_3,1	0.1605889	0.0174865	0.1309374	0.1976323	210.38697	1.060239
eta_3,2	0.0754482	0.0130898	0.0521194	0.1006110	127.11896	1.098277
eta_3,3	0.0795590	0.0112261	0.0589060	0.1024489	417.91030	1.032390
eta_3,4	0.0409141	0.0075264	0.0277112	0.0582883	698.59659	1.114385
eta_3,5	0.0922115	0.0119323	0.0714754	0.1175484	253.34078	1.051675
eta_3,6	0.0777223	0.0113470	0.0573230	0.1022152	555.23439	1.051313
eta_3,7	0.1187541	0.0155264	0.0912602	0.1506519	234.90038	1.055026
eta_3,8	0.0658006	0.0112631	0.0450097	0.0896993	2264.81513	1.030147
eta_3,9	0.0383539	0.0076520	0.0245816	0.0527912	194.86006	1.063544
eta_3,10	0.0044492	0.0023521	0.0011938	0.0100559	434.84286	1.033376
eta_3,11	0.2461981	0.0218959	0.2038677	0.2911544	1275.90929	1.039807
eta_4,1	0.1852294	0.0210190	0.1483580	0.2302295	370.54756	1.035483
eta_4,2	0.0622405	0.0133799	0.0390284	0.0884825	167.91473	1.076699
eta_4,3	0.0692683	0.0127478	0.0459245	0.0965880	1252.89278	1.050997
eta_4,4	0.0330237	0.0074602	0.0191453	0.0493583	2065.83948	1.072571
eta_4,5	0.1208593	0.0167103	0.0907567	0.1538476	218.16820	1.058083
eta_4,6	0.1467546	0.0187907	0.1100034	0.1853000	460.42928	1.040765
eta_4,7	0.1541774	0.0196255	0.1169305	0.1934590	727.37030	1.035457
eta_4,8	0.0431498	0.0106971	0.0253389	0.0669574	617.80771	1.026068
eta_4,9	0.0242443	0.0067535	0.0129291	0.0396006	927.92591	1.052317
eta_4,10	0.0135042	0.0051012	0.0048480	0.0257550	226.06586	1.059570
eta_4,11	0.1475485	0.0192889	0.1118677	0.1853908	480.69877	1.034748
eta_5,1	0.1349317	0.0189645	0.1014603	0.1750421	433.53996	1.031812
eta_5,2	0.0493801	0.0114087	0.0288173	0.0721030	329.17990	1.055999
eta_5,3	0.0880432	0.0150457	0.0608084	0.1193892	796.93145	1.035731
eta_5,4	0.0266421	0.0075411	0.0142043	0.0411275	136.56679	1.126714
eta_5,5	0.1182447	0.0163525	0.0873844	0.1518470	387.34766	1.034032
eta_5,6	0.1532955	0.0181002	0.1193356	0.1898043	579.97640	1.138752
eta_5,7	0.1781283	0.0235312	0.1344266	0.2256874	343.13714	1.039797
eta_5,8	0.0566925	0.0133027	0.0341201	0.0885075	469.30626	1.028379
eta_5,9	0.0289233	0.0078456	0.0157440	0.0440580	147.81961	1.100477
eta_5,10	0.0182963	0.0066981	0.0080095	0.0352740	78.25256	1.174602
eta_5,11	0.1474222	0.0196114	0.1127030	0.1895084	859.81289	1.037386

Table 26: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
eta_6,1	0.1761216	0.0190312	0.1389637	0.2147206	1080.99840	1.036981
eta_6,2	0.0443825	0.0099389	0.0269815	0.0644798	286.29413	1.044233
eta_6,3	0.0751021	0.0118999	0.0544791	0.1007501	256.59840	1.048715
eta_6,4	0.0200739	0.0050682	0.0112420	0.0311058	1106.86340	1.150942
eta_6,5	0.1191428	0.0146240	0.0907261	0.1480989	381.79736	1.034973
eta_6,6	0.1383638	0.0164169	0.1103154	0.1729475	205.99104	1.065028
eta_6,7	0.1818144	0.0227156	0.1417025	0.2319578	387.30277	1.037884
eta_6,8	0.0806810	0.0170149	0.0513138	0.1152166	143.68913	1.090254
eta_6,9	0.0237300	0.0058524	0.0135218	0.0358768	293.55594	1.045856
eta_6,10	0.0231665	0.0064643	0.0128415	0.0383174	113.10061	1.147480
eta_6,11	0.1174215	0.0157773	0.0894282	0.1498298	183.63319	1.065559
eta_7,1	0.1874442	0.0553848	0.0881886	0.3060213	507.98700	1.039439
eta_7,2	0.0713425	0.0363416	0.0206192	0.1555408	326.24087	1.039765
eta_7,3	0.0661179	0.0354912	0.0146358	0.1507118	361.43744	1.037421
eta_7,4	0.0238290	0.0199536	0.0010300	0.0748874	952.74589	1.057681
eta_7,5	0.0753347	0.0346337	0.0206480	0.1561738	1307.30340	1.016994
eta_7,6	0.1131771	0.0437555	0.0416437	0.2157822	673.27698	1.094464
eta_7,7	0.1795508	0.0556022	0.0816071	0.3000625	819.37799	1.037401
eta_7,8	0.1042645	0.0471401	0.0320518	0.2110580	272.84734	1.073178
eta_7,9	0.0315885	0.0242592	0.0031691	0.0946936	272.83886	1.047147
eta_7,10	0.0104423	0.0135064	0.0000230	0.0496561	651.55213	1.044162
eta_7,11	0.1369084	0.0498239	0.0572961	0.2456688	348.52208	1.039575
eta_8,1	0.2625874	0.0695307	0.1283884	0.4004476	292.43815	1.043857
eta_8,2	0.0882961	0.0447074	0.0246771	0.1994971	488.64157	1.031601
eta_8,3	0.0544196	0.0333143	0.0065473	0.1352834	1335.32584	1.040713
eta_8,4	0.0593579	0.0374737	0.0096188	0.1559542	615.85194	1.081489
eta_8,5	0.1347043	0.0559691	0.0421204	0.2593499	260.31150	1.049890
eta_8,6	0.0835865	0.0419345	0.0208870	0.1823180	581.07165	1.126656
eta_8,7	0.1227326	0.0517631	0.0383256	0.2312010	294.79386	1.044704
eta_8,8	0.0549290	0.0338292	0.0087990	0.1389385	1108.61283	1.016768
eta_8,9	0.0168017	0.0192906	0.0000440	0.0677038	313.80068	1.042271
eta_8,10	0.0136279	0.0188004	0.0000178	0.0607480	216.75495	1.057109
eta_8,11	0.1089571	0.0527865	0.0207431	0.2261020	91.12671	1.146957
eta_9,1	0.2788476	0.0562543	0.1816689	0.3892614	194.92537	1.065236
eta_9,2	0.0682495	0.0268716	0.0239033	0.1294899	511.49890	1.037163
eta_9,3	0.0216891	0.0154928	0.0010984	0.0606388	100.78198	1.137578
eta_9,4	0.0702234	0.0284831	0.0258340	0.1315180	193.46414	1.067220
eta_9,5	0.1362442	0.0404079	0.0655538	0.2164732	383.44484	1.037862
eta_9,6	0.0989699	0.0327042	0.0425737	0.1708871	986.26671	1.044730
eta_9,7	0.1277457	0.0363736	0.0638750	0.2098903	2745.33757	1.075156
eta_9,8	0.0275947	0.0175040	0.0038128	0.0702473	635.69211	1.039665
eta_9,9	0.0263963	0.0153264	0.0053247	0.0641069	1586.24856	1.110587
eta_9,10	0.0170017	0.0135973	0.0007886	0.0531192	182.19233	1.068213
eta_9,11	0.1270377	0.0365413	0.0624670	0.2074786	681.78848	1.024470
eta_10,1	0.3434411	0.0396387	0.2642746	0.4154203	263.76672	1.060968
eta_10,2	0.0265247	0.0111205	0.0097077	0.0527779	443.80929	1.039571

Table 26: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
eta_10,3	0.0526057	0.0171245	0.0236506	0.0869339	125.85098	1.101554
eta_10,4	0.0786841	0.0200953	0.0464350	0.1205478	145.21259	1.088886
eta_10,5	0.0686152	0.0189717	0.0372819	0.1093058	127.35528	1.112623
eta_10,6	0.0748761	0.0183607	0.0432664	0.1159447	921.79694	1.037887
eta_10,7	0.1041567	0.0240987	0.0649547	0.1575967	242.66157	1.054162
eta_10,8	0.1220935	0.0287089	0.0726481	0.1824016	446.45723	1.035672
eta_10,9	0.0029582	0.0035139	0.0000128	0.0125022	189.50257	1.065404
eta_10,10	0.0108893	0.0067050	0.0019359	0.0274491	242.17621	1.051284
eta_10,11	0.1151553	0.0244985	0.0732951	0.1691688	277.80463	1.046488
eta_11,1	0.2855827	0.0235594	0.2434972	0.3400733	144.87265	1.088212
eta_11,2	0.1558746	0.0172770	0.1223078	0.1903151	397.15032	1.031681
eta_11,3	0.0389961	0.0087589	0.0243927	0.0585810	487.13896	1.113712
eta_11,4	0.0306774	0.0066295	0.0193684	0.0459158	608.46657	1.025796
eta_11,5	0.0492862	0.0084197	0.0341820	0.0670039	1508.83823	1.032537
eta_11,6	0.1073056	0.0127097	0.0831983	0.1335237	2259.82300	1.052414
eta_11,7	0.1250748	0.0155205	0.0968198	0.1564893	267.03579	1.046982
eta_11,8	0.0867592	0.0124142	0.0647235	0.1120551	620.20438	1.117130
eta_11,9	0.0060159	0.0030216	0.0015408	0.0128814	360.73015	1.045228
eta_11,10	0.0129662	0.0047427	0.0059234	0.0237554	139.81858	1.089877
eta_11,11	0.1014614	0.0141087	0.0741820	0.1309350	241.33230	1.073486
eta_12,1	0.2170217	0.0144896	0.1892408	0.2472859	2232.60146	1.041309
eta_12,2	0.2799799	0.0179785	0.2449430	0.3150082	593.68186	1.024556
eta_12,3	0.0596448	0.0078276	0.0451156	0.0754340	415.46680	1.030766
eta_12,4	0.0220325	0.0041237	0.0145997	0.0309786	854.28716	1.045357
eta_12,5	0.0529619	0.0071306	0.0406887	0.0665065	172.86750	1.071787
eta_12,6	0.0712545	0.0088470	0.0542716	0.0887990	261.36296	1.052174
eta_12,7	0.1187450	0.0116846	0.0970192	0.1417951	436.81918	1.052485
eta_12,8	0.0814100	0.0093770	0.0642636	0.1008132	555.75326	1.099466
eta_12,9	0.0070119	0.0026274	0.0028977	0.0128670	249.77496	1.050582
eta_12,10	0.0052016	0.0021266	0.0018438	0.0099924	364.41835	1.081254
eta_12,11	0.0847361	0.0089331	0.0678084	0.1036242	2060.76733	1.026154
eta_13,1	0.2101293	0.0165464	0.1781870	0.2407774	232.83722	1.055010
eta_13,2	0.2691447	0.0182178	0.2336139	0.3050852	1148.28493	1.061305
eta_13,3	0.0728829	0.0093619	0.0561203	0.0921636	390.14054	1.033539
eta_13,4	0.0239445	0.0047856	0.0155865	0.0339304	309.48935	1.051840
eta_13,5	0.0716570	0.0088173	0.0549502	0.0904194	2246.44626	1.040653
eta_13,6	0.0754724	0.0105902	0.0533999	0.0959820	92.77541	1.144818
eta_13,7	0.0929287	0.0122557	0.0713816	0.1188185	148.56166	1.084300
eta_13,8	0.0737246	0.0098467	0.0550591	0.0928110	476.45101	1.036140
eta_13,9	0.0050930	0.0022632	0.0016588	0.0103495	300.91274	1.044110
eta_13,10	0.0091543	0.0030124	0.0041892	0.0155437	285.22665	1.045828
eta_13,11	0.0958685	0.0104766	0.0758830	0.1177803	1269.49362	1.019411
eta_14,1	0.1935950	0.0233529	0.1500282	0.2409661	1576.74541	1.104694
eta_14,2	0.2791197	0.0307819	0.2220340	0.3399695	166.93544	1.076945
eta_14,3	0.0859534	0.0166559	0.0586379	0.1215281	222.30591	1.058003
eta_14,4	0.0326944	0.0083817	0.0183758	0.0507767	443.24376	1.032079
eta_14,5	0.0663842	0.0118352	0.0446633	0.0912500	802.84962	1.019680

Table 26: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
eta_14,6	0.0774251	0.0151291	0.0522946	0.1087148	230.55426	1.053823
eta_14,7	0.0863511	0.0170485	0.0585221	0.1245070	258.47532	1.051030
eta_14,8	0.0888733	0.0168252	0.0595538	0.1239414	417.46595	1.101268
eta_14,9	0.0069506	0.0043239	0.0012260	0.0173890	1204.16177	1.017186
eta_14,10	0.0042494	0.0034046	0.0003686	0.0123451	160.28158	1.091999
eta_14,11	0.0784037	0.0151143	0.0509769	0.1114240	250.75664	1.058977
eta_15,1	0.3772233	0.0728218	0.2454109	0.5320557	740.53714	1.035990
eta_15,2	0.1325640	0.0484862	0.0490353	0.2366540	240.42677	1.050944
eta_15,3	0.0654276	0.0358520	0.0134102	0.1404031	132.12977	1.097748
eta_15,4	0.0209679	0.0190495	0.0005426	0.0699076	99.05415	1.133440
eta_15,5	0.0494861	0.0277643	0.0098846	0.1152675	641.47395	1.030935
eta_15,6	0.0856327	0.0419358	0.0259466	0.1919385	149.16309	1.083163
eta_15,7	0.1421632	0.0494453	0.0576131	0.2473589	436.69787	1.033474
eta_15,8	0.0418668	0.0305864	0.0034386	0.1171940	95.08642	1.137941
eta_15,9	0.0122036	0.0142290	0.0000796	0.0520703	381.81075	1.036417
eta_15,10	0.0100036	0.0131229	0.0000132	0.0464969	786.87474	1.041514
eta_15,11	0.0624612	0.0343767	0.0142303	0.1421421	289.96883	1.043945
eta_16,1	0.2670312	0.0800329	0.1351630	0.4284428	112.83260	1.114906
eta_16,2	0.1027852	0.0561000	0.0240103	0.2455920	97.94828	1.158357
eta_16,3	0.0816023	0.0414442	0.0195681	0.1800172	320.77848	1.040495
eta_16,4	0.0668880	0.0387687	0.0113308	0.1529396	278.43210	1.047290
eta_16,5	0.0683707	0.0424364	0.0123655	0.1765034	150.28401	1.085267
eta_16,6	0.1140693	0.0506589	0.0366269	0.2298201	347.19882	1.042877
eta_16,7	0.1198462	0.0523604	0.0375271	0.2288872	228.39286	1.068153
eta_16,8	0.0548411	0.0359502	0.0040825	0.1439028	253.11202	1.052172
eta_16,9	0.0194152	0.0236080	0.0000645	0.0864127	125.32144	1.105934
eta_16,10	0.0153414	0.0190734	0.0000400	0.0684304	353.90354	1.038176
eta_16,11	0.0898094	0.0445802	0.0203067	0.1949100	1748.32644	1.111338
eta_17,1	0.3898061	0.0573734	0.2711978	0.5018775	297.13540	1.043705
eta_17,2	0.2891437	0.0514646	0.1929023	0.3988956	2201.88247	1.077790
eta_17,3	0.0194424	0.0131030	0.0022536	0.0525495	1360.56695	1.095007
eta_17,4	0.0099117	0.0092585	0.0004457	0.0353906	890.44081	1.020380
eta_17,5	0.0306941	0.0157240	0.0086229	0.0682163	286.72826	1.046682
eta_17,6	0.0914958	0.0282157	0.0434609	0.1559719	660.97320	1.038339
eta_17,7	0.1054040	0.0311082	0.0526146	0.1741871	1460.99975	1.039764
eta_17,8	0.0226115	0.0151619	0.0021241	0.0605531	281.47129	1.057656
eta_17,9	0.0060926	0.0078845	0.0000092	0.0281604	221.43318	1.058058
eta_17,10	0.0048334	0.0060709	0.0000102	0.0213670	242.04832	1.054420
eta_17,11	0.0305647	0.0170174	0.0066781	0.0713190	195.58715	1.065989
eta_18,1	0.4050017	0.0449439	0.3183113	0.4894798	207.09769	1.060235
eta_18,2	0.1779455	0.0318133	0.1197044	0.2437454	794.85136	1.084738
eta_18,3	0.0718824	0.0203950	0.0396201	0.1187559	276.37892	1.046461
eta_18,4	0.0148212	0.0085741	0.0035837	0.0359701	489.29078	1.030122
eta_18,5	0.0421183	0.0132320	0.0198454	0.0722817	1255.95819	1.058380
eta_18,6	0.0814373	0.0202560	0.0470527	0.1276870	1528.14468	1.019435
eta_18,7	0.1054676	0.0260134	0.0623422	0.1622068	149.28070	1.089880
eta_18,8	0.0355404	0.0145044	0.0133444	0.0664490	316.80508	1.077502

Table 26: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
eta_18,9	0.0037589	0.0042373	0.0000118	0.0145673	210.51582	1.074990
eta_18,10	0.0074882	0.0060120	0.0006417	0.0224647	234.74412	1.056078
eta_18,11	0.0545385	0.0187518	0.0232797	0.0920310	151.85565	1.126984
eta_19,1	0.2741691	0.0465877	0.1907279	0.3702878	224.53230	1.057566
eta_19,2	0.1831813	0.0414324	0.1091376	0.2669499	333.28561	1.050518
eta_19,3	0.0709735	0.0311345	0.0285501	0.1596420	96.65148	1.175929
eta_19,4	0.0393044	0.0163053	0.0140949	0.0764774	681.58001	1.105123
eta_19,5	0.0548546	0.0207403	0.0222046	0.0966913	152.12625	1.081533
eta_19,6	0.0712314	0.0226476	0.0341369	0.1215990	921.55515	1.028281
eta_19,7	0.1472921	0.0357937	0.0896255	0.2260675	397.55696	1.050713
eta_19,8	0.0788207	0.0268727	0.0351940	0.1359745	303.16388	1.045745
eta_19,9	0.0053582	0.0066470	0.0000055	0.0232016	162.29043	1.080128
eta_19,10	0.0046744	0.0056577	0.0000067	0.0198816	475.67313	1.075765
eta_19,11	0.0701404	0.0237204	0.0303728	0.1236454	824.55825	1.030836

Table 27: Estimates for $\pi_{g,j}$, proportion of diet (consumed biomass) consisting of prey type j, for each group level g

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
pi_1,1	0.1575166	0.0585851	0.0605592	0.2844565	298.07400	1.043034
pi_1,2	0.0564525	0.0328247	0.0140469	0.1421723	147.41896	1.087248
pi_1,3	0.0527392	0.0355895	0.0052766	0.1372423	159.01291	1.078611
pi_1,4	0.0482633	0.0394881	0.0022756	0.1474801	711.15189	1.083302
pi_1,5	0.2030746	0.0693679	0.0819123	0.3569748	2038.06481	1.021338
pi_1,6	0.1867342	0.0685423	0.0646970	0.3390675	215.88142	1.057432
pi_1,7	0.1324800	0.0478577	0.0552966	0.2363957	236.14226	1.052912
pi_1,8	0.0250705	0.0172060	0.0030309	0.0666478	342.11485	1.043227
pi_1,9	0.0385781	0.0318568	0.0036380	0.1260501	157.52785	1.078448
pi_1,10	0.0276211	0.0364198	0.0000290	0.1278134	101.26897	1.131562
pi_1,11	0.0714701	0.0335997	0.0208745	0.1517570	481.73078	1.026868
pi_2,1	0.1554533	0.0225708	0.1124046	0.2001948	484.17533	1.029114
pi_2,2	0.0814226	0.0137361	0.0572954	0.1110579	374.92690	1.034101
pi_2,3	0.1074464	0.0176030	0.0743215	0.1455544	3518.72877	1.041317
pi_2,4	0.1092582	0.0198038	0.0738940	0.1503429	468.61875	1.074277
pi_2,5	0.1269561	0.0193492	0.0919488	0.1685382	1118.27577	1.023276
pi_2,6	0.0864414	0.0157804	0.0564254	0.1197772	392.28336	1.031793
pi_2,7	0.0989742	0.0169263	0.0713986	0.1359990	284.69212	1.047082
pi_2,8	0.0311428	0.0069039	0.0194829	0.0460890	397.01088	1.104050
pi_2,9	0.0849569	0.0166798	0.0564566	0.1198357	221.06532	1.057654
pi_2,10	0.0259478	0.0092944	0.0114888	0.0471568	488.22490	1.031953
pi_2,11	0.0920004	0.0140718	0.0656908	0.1211188	406.54051	1.033308
pi_3,1	0.1570946	0.0223015	0.1164240	0.2044862	1382.61242	1.043148
pi_3,2	0.0623855	0.0115073	0.0418936	0.0868649	502.46414	1.030120
pi_3,3	0.1103797	0.0196418	0.0756088	0.1475674	149.97738	1.086101
pi_3,4	0.0861029	0.0183654	0.0552637	0.1282067	421.76229	1.033715

Table 27: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
pi_3,5	0.1390068	0.0224479	0.1002010	0.1865100	359.46211	1.037034
pi_3,6	0.0700184	0.0136858	0.0463943	0.0998713	311.92727	1.040448
pi_3,7	0.0780595	0.0145643	0.0539553	0.1096138	288.90259	1.044379
pi_3,8	0.0286906	0.0059536	0.0181957	0.0418779	1591.41180	1.057640
pi_3,9	0.0490073	0.0115407	0.0293092	0.0746631	320.55177	1.116484
pi_3,10	0.0126962	0.0067547	0.0034514	0.0290585	356.20197	1.039108
pi_3,11	0.2065585	0.0258179	0.1594441	0.2591058	289.74394	1.044219
pi_4,1	0.1914464	0.0274447	0.1423163	0.2518049	2052.29079	1.089802
pi_4,2	0.0456570	0.0105148	0.0269656	0.0669310	204.28094	1.061341
pi_4,3	0.0786521	0.0171789	0.0478845	0.1179676	589.47525	1.024264
pi_4,4	0.0688188	0.0171761	0.0378632	0.1055941	1451.78268	1.041787
pi_4,5	0.1606399	0.0277310	0.1130499	0.2177371	220.28220	1.060386
pi_4,6	0.1550038	0.0255753	0.1065238	0.2085258	446.44462	1.040408
pi_4,7	0.1016883	0.0191299	0.0682431	0.1446551	323.20611	1.083345
pi_4,8	0.0189423	0.0053394	0.0098965	0.0306686	227.86494	1.057023
pi_4,9	0.0299468	0.0095515	0.0151656	0.0510808	306.23518	1.041447
pi_4,10	0.0366508	0.0135340	0.0136931	0.0674915	233.83211	1.053603
pi_4,11	0.1125538	0.0187956	0.0786696	0.1485123	263.78787	1.047040
pi_5,1	0.1285944	0.0225953	0.0895352	0.1775298	664.47681	1.061447
pi_5,2	0.0404125	0.0102626	0.0226129	0.0635291	301.71813	1.098912
pi_5,3	0.1159671	0.0226847	0.0765391	0.1634434	311.16183	1.040053
pi_5,4	0.0540535	0.0158527	0.0268057	0.0888779	183.81290	1.067186
pi_5,5	0.1601166	0.0269449	0.1113219	0.2179975	352.76017	1.054902
pi_5,6	0.1549924	0.0241218	0.1110286	0.2066350	1395.83239	1.064028
pi_5,7	0.1121634	0.0207147	0.0733842	0.1563411	286.49952	1.085162
pi_5,8	0.0283909	0.0071635	0.0165857	0.0448724	478.46249	1.028058
pi_5,9	0.0346794	0.0099176	0.0181741	0.0568167	373.16097	1.037805
pi_5,10	0.0491918	0.0179231	0.0208180	0.0955595	71.57945	1.194930
pi_5,11	0.1214381	0.0191307	0.0870038	0.1637958	2926.54444	1.060887
pi_6,1	0.1787985	0.0252152	0.1313790	0.2302698	1863.23690	1.034514
pi_6,2	0.0398472	0.0094330	0.0237351	0.0605718	307.85522	1.039881
pi_6,3	0.0884848	0.0165763	0.0607888	0.1249118	331.98623	1.038167
pi_6,4	0.0414454	0.0116061	0.0216033	0.0669598	876.40230	1.105536
pi_6,5	0.1661102	0.0249310	0.1179928	0.2184282	590.85888	1.068852
pi_6,6	0.1347306	0.0227941	0.0976307	0.1835187	203.66642	1.061525
pi_6,7	0.1095907	0.0199110	0.0718767	0.1533432	236.87395	1.084759
pi_6,8	0.0376935	0.0084571	0.0230698	0.0553117	277.29858	1.046138
pi_6,9	0.0289196	0.0079564	0.0160510	0.0470006	1786.96909	1.101336
pi_6,10	0.0647521	0.0174612	0.0364299	0.1057960	106.38178	1.123189
pi_6,11	0.1096274	0.0171806	0.0791238	0.1468486	386.86089	1.035977
pi_7,1	0.1961235	0.0600711	0.0902916	0.3301567	1123.92409	1.027457
pi_7,2	0.0599318	0.0318618	0.0166692	0.1342064	230.62894	1.054859
pi_7,3	0.0854828	0.0455082	0.0193041	0.1901450	284.90538	1.044582
pi_7,4	0.0514108	0.0414187	0.0023798	0.1580042	716.63492	1.051851
pi_7,5	0.1165298	0.0529179	0.0310930	0.2414709	969.97924	1.020199
pi_7,6	0.1254706	0.0502049	0.0435674	0.2444764	1672.01418	1.115526
pi_7,7	0.1172478	0.0424037	0.0495667	0.2136988	1138.37883	1.051970

Table 27: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
pi_7,8	0.0580936	0.0293410	0.0164524	0.1284939	252.44698	1.074004
pi_7,9	0.0421119	0.0328221	0.0043991	0.1268325	422.92548	1.031139
pi_7,10	0.0297630	0.0371614	0.0000664	0.1361520	520.71508	1.044950
pi_7,11	0.1178345	0.0446603	0.0468636	0.2223073	681.35298	1.021607
pi_8,1	0.2475849	0.0727567	0.1084200	0.3978979	372.60163	1.038373
pi_8,2	0.0683480	0.0369611	0.0173151	0.1577113	597.26868	1.036686
pi_8,3	0.0640354	0.0397887	0.0073465	0.1625270	700.69495	1.044439
pi_8,4	0.1146007	0.0683399	0.0201393	0.2809999	646.84076	1.134059
pi_8,5	0.1797312	0.0721932	0.0618510	0.3434472	388.51444	1.034233
pi_8,6	0.0841350	0.0436873	0.0209525	0.1832228	344.64275	1.098691
pi_8,7	0.0764814	0.0360938	0.0215156	0.1610870	292.56611	1.043988
pi_8,8	0.0256709	0.0171140	0.0036631	0.0689849	1678.39420	1.022025
pi_8,9	0.0201817	0.0238238	0.0000530	0.0884154	328.46685	1.040539
pi_8,10	0.0344633	0.0451411	0.0000444	0.1477380	221.36593	1.055650
pi_8,11	0.0847675	0.0439003	0.0165520	0.1876862	88.65088	1.150839
pi_9,1	0.2610483	0.0621379	0.1600719	0.3902442	146.99171	1.088570
pi_9,2	0.0504536	0.0214786	0.0173373	0.1003648	753.67991	1.083012
pi_9,3	0.0243153	0.0177061	0.0010969	0.0683870	97.57710	1.141169
pi_9,4	0.1346014	0.0537558	0.0494568	0.2510810	170.98631	1.076178
pi_9,5	0.1766723	0.0535841	0.0851904	0.2889994	860.74680	1.045755
pi_9,6	0.0971260	0.0345308	0.0396875	0.1752297	573.85177	1.033077
pi_9,7	0.0766756	0.0261341	0.0343356	0.1381895	1425.40934	1.075271
pi_9,8	0.0123119	0.0082019	0.0016311	0.0329083	982.14046	1.026443
pi_9,9	0.0308446	0.0190568	0.0062065	0.0808217	1529.69418	1.035629
pi_9,10	0.0425954	0.0331323	0.0020571	0.1303678	187.35096	1.066464
pi_9,11	0.0933556	0.0304463	0.0433098	0.1618052	387.59080	1.033077
pi_10,1	0.3436581	0.0475652	0.2501407	0.4350554	344.38823	1.040554
pi_10,2	0.0205324	0.0090248	0.0071599	0.0422411	641.18136	1.026774
pi_10,3	0.0604299	0.0211517	0.0271420	0.1020661	120.47480	1.106739
pi_10,4	0.1600769	0.0407836	0.0948316	0.2444582	189.86318	1.067168
pi_10,5	0.0933846	0.0271876	0.0491824	0.1484324	150.18004	1.085356
pi_10,6	0.0860499	0.0242560	0.0482547	0.1422951	273.09661	1.048115
pi_10,7	0.0641839	0.0178138	0.0365746	0.1056746	357.55872	1.041934
pi_10,8	0.0520495	0.0148774	0.0287223	0.0881480	275.48168	1.080576
pi_10,9	0.0035388	0.0043047	0.0000153	0.0154208	194.77820	1.062917
pi_10,10	0.0286515	0.0174025	0.0051630	0.0700155	226.55124	1.054288
pi_10,11	0.0874446	0.0214264	0.0528658	0.1368022	856.52405	1.021082
pi_11,1	0.2793288	0.0324466	0.2188669	0.3398423	178.81480	1.072072
pi_11,2	0.1308270	0.0187754	0.0962603	0.1686816	265.51254	1.047437
pi_11,3	0.0478003	0.0118112	0.0282954	0.0742391	397.71364	1.033581
pi_11,4	0.0661622	0.0159824	0.0386221	0.1042489	868.11467	1.084969
pi_11,5	0.0727866	0.0146583	0.0477478	0.1046691	612.23219	1.030277
pi_11,6	0.1191943	0.0196025	0.0850582	0.1607026	394.15977	1.054801
pi_11,7	0.1037849	0.0184469	0.0718349	0.1447903	792.00696	1.057623
pi_11,8	0.0511135	0.0093266	0.0341065	0.0705865	222.92071	1.108386
pi_11,9	0.0071626	0.0037085	0.0017935	0.0159109	694.87392	1.031632
pi_11,10	0.0366528	0.0131127	0.0169345	0.0660705	144.87310	1.086388

Table 27: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
pi_11,11	0.0851869	0.0145762	0.0598640	0.1149878	245.45133	1.051979
pi_12,1	0.2314488	0.0249796	0.1862559	0.2846970	1078.70189	1.020062
pi_12,2	0.2680386	0.0244291	0.2218770	0.3179771	1442.28597	1.036119
pi_12,3	0.0730252	0.0124771	0.0500220	0.0981888	727.19823	1.023302
pi_12,4	0.0495660	0.0107129	0.0303363	0.0723450	833.02069	1.099551
pi_12,5	0.0800507	0.0148711	0.0544350	0.1119910	153.05654	1.084012
pi_12,6	0.0831597	0.0135799	0.0584384	0.1120642	862.69006	1.038715
pi_12,7	0.0714998	0.0119379	0.0494058	0.0966707	208.89643	1.072627
pi_12,8	0.0454604	0.0068286	0.0332026	0.0608700	2242.73222	1.015602
pi_12,9	0.0081787	0.0033310	0.0032326	0.0168942	241.67130	1.062874
pi_12,10	0.0150693	0.0060771	0.0053648	0.0288851	398.04136	1.076536
pi_12,11	0.0745028	0.0106695	0.0552177	0.0964469	347.20715	1.037746
pi_13,1	0.2076065	0.0244960	0.1623189	0.2542319	286.16720	1.045719
pi_13,2	0.2278801	0.0232761	0.1859520	0.2769611	1977.74884	1.049799
pi_13,3	0.0894497	0.0145026	0.0635497	0.1204113	573.78069	1.024162
pi_13,4	0.0555031	0.0126243	0.0334724	0.0814067	297.20660	1.055087
pi_13,5	0.1181149	0.0190190	0.0840496	0.1573489	361.44967	1.080838
pi_13,6	0.0850577	0.0155730	0.0578583	0.1187269	115.48120	1.111986
pi_13,7	0.0626037	0.0125030	0.0381040	0.0890010	155.70819	1.079306
pi_13,8	0.0351815	0.0058611	0.0246147	0.0473163	383.32471	1.033582
pi_13,9	0.0071665	0.0035245	0.0022775	0.0158376	310.12175	1.090546
pi_13,10	0.0270842	0.0087660	0.0125900	0.0454421	295.75061	1.044457
pi_13,11	0.0843521	0.0116941	0.0627171	0.1093067	2438.86300	1.050090
pi_14,1	0.2041614	0.0306541	0.1482378	0.2686924	1915.44054	1.047034
pi_14,2	0.2409419	0.0322335	0.1802918	0.3065575	456.80662	1.056401
pi_14,3	0.1200836	0.0252098	0.0782495	0.1757754	389.46265	1.091410
pi_14,4	0.0698902	0.0192877	0.0378248	0.1110548	385.19423	1.043056
pi_14,5	0.0936890	0.0192478	0.0593000	0.1350172	643.00037	1.023923
pi_14,6	0.0846523	0.0195259	0.0533328	0.1300843	218.96312	1.058634
pi_14,7	0.0590872	0.0140762	0.0350577	0.0910529	1769.67692	1.062656
pi_14,8	0.0436817	0.0099104	0.0275293	0.0645455	260.71438	1.098780
pi_14,9	0.0088119	0.0057826	0.0015149	0.0240774	1544.01499	1.061001
pi_14,10	0.0118018	0.0094036	0.0010081	0.0340089	153.86973	1.094225
pi_14,11	0.0631989	0.0144824	0.0378356	0.0969971	224.88559	1.062595
pi_15,1	0.3808056	0.0817514	0.2364072	0.5536775	617.61048	1.049165
pi_15,2	0.1046548	0.0410962	0.0356887	0.1956267	271.21051	1.046274
pi_15,3	0.0885807	0.0500282	0.0187293	0.2024280	105.73398	1.124008
pi_15,4	0.0449081	0.0396656	0.0013231	0.1499389	103.86661	1.127106
pi_15,5	0.0722497	0.0411507	0.0143887	0.1716983	809.93485	1.112608
pi_15,6	0.0932663	0.0463090	0.0267530	0.2036360	152.58770	1.082235
pi_15,7	0.0964711	0.0396401	0.0364165	0.1852257	192.51629	1.065579
pi_15,8	0.0214732	0.0165857	0.0016924	0.0628533	96.28898	1.136968
pi_15,9	0.0159273	0.0189413	0.0001011	0.0701221	447.66141	1.033738
pi_15,10	0.0279978	0.0351857	0.0000387	0.1244705	805.95678	1.040074
pi_15,11	0.0536655	0.0306792	0.0113134	0.1257521	256.37284	1.050109
pi_16,1	0.2650511	0.0847165	0.1265880	0.4442033	117.84374	1.109572

Table 27: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
pi_16,2	0.0791736	0.0448864	0.0175393	0.1861540	120.46911	1.129649
pi_16,3	0.0905498	0.0482525	0.0210238	0.1981079	179.18317	1.070491
pi_16,4	0.1317438	0.0743930	0.0220526	0.2867346	176.92846	1.074912
pi_16,5	0.0912820	0.0567307	0.0155011	0.2360435	135.62278	1.095816
pi_16,6	0.1133038	0.0533593	0.0337794	0.2386795	307.95834	1.046089
pi_16,7	0.0728599	0.0360899	0.0208469	0.1559822	250.39187	1.051818
pi_16,8	0.0252758	0.0176467	0.0015639	0.0714417	236.00883	1.055328
pi_16,9	0.0232593	0.0282378	0.0000759	0.0983933	123.64562	1.107640
pi_16,10	0.0386505	0.0457732	0.0001013	0.1666243	364.06214	1.037637
pi_16,11	0.0688504	0.0365848	0.0148073	0.1572557	1208.01350	1.035906
pi_17,1	0.4279626	0.0672265	0.2908407	0.5536022	440.80825	1.030649
pi_17,2	0.2243140	0.0489397	0.1365448	0.3272716	1646.56332	1.048668
pi_17,3	0.0272465	0.0182728	0.0032711	0.0747150	1459.33060	1.094016
pi_17,4	0.0233393	0.0214811	0.0010188	0.0827889	1416.42893	1.031633
pi_17,5	0.0494575	0.0261853	0.0137700	0.1112442	324.11713	1.055468
pi_17,6	0.1088427	0.0352498	0.0500443	0.1871691	2289.64350	1.068019
pi_17,7	0.0744175	0.0248227	0.0337050	0.1330651	2268.07564	1.094555
pi_17,8	0.0123944	0.0085219	0.0013263	0.0337721	311.55487	1.113802
pi_17,9	0.0087716	0.0115043	0.0000130	0.0398566	202.04600	1.063278
pi_17,10	0.0149507	0.0183103	0.0000322	0.0633886	240.47553	1.054701
pi_17,11	0.0283034	0.0158104	0.0060649	0.0658484	301.90947	1.045409
pi_18,1	0.4130732	0.0539119	0.3122126	0.5151385	243.31101	1.051491
pi_18,2	0.1339360	0.0291166	0.0831715	0.1991406	331.29124	1.128798
pi_18,3	0.0951700	0.0284417	0.0493767	0.1618535	404.12406	1.034396
pi_18,4	0.0333006	0.0189783	0.0079119	0.0798645	754.72739	1.025174
pi_18,5	0.0648051	0.0217131	0.0296117	0.1148264	720.92554	1.095033
pi_18,6	0.0925261	0.0261056	0.0496000	0.1532323	2670.84205	1.077320
pi_18,7	0.0734973	0.0220165	0.0404081	0.1255799	255.74192	1.052918
pi_18,8	0.0186223	0.0082607	0.0065324	0.0403939	310.92201	1.146839
pi_18,9	0.0049580	0.0056278	0.0000163	0.0195456	279.92262	1.056042
pi_18,10	0.0219511	0.0173113	0.0019514	0.0655274	248.86152	1.052728
pi_18,11	0.0481603	0.0180855	0.0197797	0.0867645	119.21565	1.109650
pi_19,1	0.2881077	0.0577726	0.1900052	0.4062722	146.59241	1.086406
pi_19,2	0.1538336	0.0410209	0.0865637	0.2377202	184.04249	1.067994
pi_19,3	0.0896513	0.0434776	0.0336423	0.2240313	94.45399	1.162919
pi_19,4	0.0838306	0.0349411	0.0304260	0.1643266	469.80996	1.052928
pi_19,5	0.0801395	0.0313532	0.0316537	0.1429596	155.98938	1.080916
pi_19,6	0.0782246	0.0272266	0.0344881	0.1400054	714.10365	1.084567
pi_19,7	0.1006264	0.0293295	0.0541498	0.1697461	853.53801	1.025258
pi_19,8	0.0463635	0.0176984	0.0197952	0.0867024	262.70014	1.053258
pi_19,9	0.0069770	0.0089424	0.0000085	0.0302531	158.37456	1.082668
pi_19,10	0.0130749	0.0154797	0.0000191	0.0555536	495.68657	1.072852
pi_19,11	0.0591710	0.0212028	0.0246791	0.1079583	394.60061	1.037358

Table 28: Estimates for $\omega_{g,j}$, probability that prey type j is positively identified (and thus not recorded as 'Un-ID' prey) for each group level g, and $\upsilon_{g,j}$, relative contribution of prey type j to 'Un-ID' prey category for each group level g

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
omega_1,1	0.3320271	0.1710851	0.0771638	0.6934006	147.95435	1.084704
omega_1,2	0.2259183	0.1166306	0.0576849	0.5037456	380.66132	1.038490
omega_1,3	0.2452477	0.1166961	0.0704080	0.5165300	463.99351	1.031406
omega_1,4	0.0177282	0.0204593	0.0005362	0.0656850	123.58777	1.107954
omega_1,5	0.0634014	0.0450703	0.0096035	0.1800182	2483.57207	1.067566
omega_1,6	0.2698917	0.1061887	0.0953678	0.5069053	411.78358	1.031851
omega_1,7	0.4620398	0.1372116	0.1797156	0.7378350	240.11389	1.073876
omega_1,8	0.4721270	0.1597781	0.1911349	0.8032102	360.41636	1.041650
omega_1,9	0.1202352	0.1194542	0.0082545	0.4934090	70.24376	1.201302
omega_1,10	0.0730118	0.0773314	0.0033799	0.2785494	110.12239	1.119619
omega_1,11	0.2138725	0.1033896	0.0592076	0.4553850	277.66644	1.091416
omega_2,1	0.3735426	0.0385630	0.3004045	0.4438430	110.48999	1.117344
omega_2,2	0.2854135	0.0383962	0.2130951	0.3547013	157.14655	1.080016
omega_2,3	0.2726135	0.0507869	0.1786654	0.3783641	237.04823	1.054464
omega_2,4	0.0107386	0.0070903	0.0028713	0.0292239	340.70116	1.040002
omega_2,5	0.0479622	0.0189015	0.0199306	0.0923155	858.65688	1.109350
omega_2,6	0.2290158	0.0399849	0.1549430	0.3107704	187.16484	1.065973
omega_2,7	0.4536281	0.0410341	0.3697936	0.5350711	471.15757	1.134045
omega_2,8	0.4235528	0.0511718	0.3240677	0.5215759	440.95378	1.108089
omega_2,9	0.2049352	0.0541464	0.1116013	0.3198443	275.65351	1.052268
omega_2,10	0.0816320	0.0618966	0.0108255	0.2493873	151.98963	1.087010
omega_2,11	0.1885917	0.0327196	0.1290277	0.2562880	739.40963	1.020163
omega_3,1	0.3121409	0.0318424	0.2497063	0.3773064	522.55248	1.091258
omega_3,2	0.2636674	0.0327149	0.2016048	0.3324537	1035.86351	1.023899
omega_3,3	0.1786087	0.0361526	0.1131569	0.2520160	314.65844	1.055144
omega_3,4	0.0154153	0.0098028	0.0037439	0.0403249	630.94955	1.023597
omega_3,5	0.0717728	0.0261779	0.0300106	0.1322060	234.09772	1.053078
omega_3,6	0.1454436	0.0334565	0.0876052	0.2168579	543.00511	1.116632
omega_3,7	0.3371196	0.0400788	0.2628106	0.4173623	319.68886	1.043870
omega_3,8	0.3648700	0.0461129	0.2854386	0.4610760	226.72286	1.057554
omega_3,9	0.1021198	0.0377422	0.0483560	0.1945147	377.48642	1.040712
omega_3,10	0.0628890	0.0499411	0.0072280	0.1969523	498.81582	1.100753
omega_3,11	0.2581964	0.0300415	0.2047277	0.3205156	237.58594	1.055906
omega_4,1	0.3519790	0.0350641	0.2818823	0.4214044	269.56255	1.049043
omega_4,2	0.3191736	0.0413657	0.2440026	0.4066496	369.48110	1.034102
omega_4,3	0.3036246	0.0427578	0.2187888	0.3885429	904.51465	1.087155
omega_4,4	0.0242365	0.0188719	0.0026606	0.0740360	1343.85063	1.018366
omega_4,5	0.0455956	0.0224796	0.0152633	0.1122446	178.97176	1.130669
omega_4,6	0.1791103	0.0311221	0.1245318	0.2438340	273.05947	1.050590
omega_4,7	0.4029166	0.0408765	0.3226587	0.4846177	628.82350	1.072437
omega_4,8	0.3588806	0.0517479	0.2617266	0.4672924	1235.48567	1.018418
omega_4,9	0.1328689	0.0637857	0.0312629	0.2786666	609.61773	1.026162
omega_4,10	0.0797329	0.0540339	0.0155570	0.2282765	195.34677	1.065290
omega_4,11	0.2939627	0.0342639	0.2258013	0.3675596	3819.66773	1.067019
omega_5,1	0.3598489	0.0438920	0.2756106	0.4485130	2078.28035	1.050006

Table 28: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
omega_5,2	0.3130195	0.0498998	0.2191119	0.4191988	2818.62015	1.027068
omega_5,3	0.2603551	0.0527827	0.1668942	0.3720878	678.56391	1.024574
omega_5,4	0.0317370	0.0183074	0.0078892	0.0761685	231.60302	1.053598
omega_5,5	0.0749405	0.0285760	0.0303197	0.1389260	899.06402	1.030765
omega_5,6	0.1939400	0.0355868	0.1285706	0.2657158	270.94998	1.045553
omega_5,7	0.4271772	0.0477123	0.3366355	0.5250522	782.86245	1.102286
omega_5,8	0.3992864	0.0624608	0.2884071	0.5301250	193.53089	1.065568
omega_5,9	0.0849479	0.0520817	0.0239696	0.2181213	196.24312	1.066395
omega_5,10	0.0932175	0.0711504	0.0107218	0.2784598	280.53182	1.058666
omega_5,11	0.2583546	0.0393220	0.1886438	0.3429253	683.21506	1.099163
omega_6,1	0.4018360	0.0386332	0.3255174	0.4802714	2640.09951	1.088381
omega_6,2	0.3754073	0.0563035	0.2668378	0.4885019	440.59047	1.040663
omega_6,3	0.2344733	0.0462430	0.1540914	0.3347958	357.75562	1.039351
omega_6,4	0.0109326	0.0089373	0.0015229	0.0347956	1450.41403	1.040782
omega_6,5	0.0710633	0.0255832	0.0324719	0.1317701	525.39706	1.029935
omega_6,6	0.2196502	0.0395869	0.1508033	0.2965722	125.20508	1.105949
omega_6,7	0.5238986	0.0457883	0.4297794	0.6144198	175.37801	1.076441
omega_6,8	0.5348048	0.0542691	0.4338063	0.6414032	250.89790	1.053082
omega_6,9	0.1204133	0.0763732	0.0359051	0.3156916	94.26216	1.166964
omega_6,10	0.1234553	0.0591790	0.0424870	0.2728013	365.83962	1.036966
omega_6,11	0.2677733	0.0415366	0.1927766	0.3573766	624.37700	1.033080
omega_7,1	0.2853427	0.1377530	0.0769672	0.6000525	354.04488	1.037063
omega_7,2	0.2268505	0.1232772	0.0543978	0.5353263	878.96404	1.135040
omega_7,3	0.2165738	0.1115559	0.0684971	0.4860900	157.08091	1.079592
omega_7,4	0.0164091	0.0195903	0.0008367	0.0693611	359.74890	1.038393
omega_7,5	0.0660936	0.0488337	0.0113625	0.1904689	357.58798	1.096798
omega_7,6	0.1797836	0.1031121	0.0426992	0.4295581	574.21338	1.084818
omega_7,7	0.3570161	0.1261991	0.1245690	0.6312718	256.29666	1.098254
omega_7,8	0.3784017	0.1382682	0.1287607	0.6663659	185.58175	1.066181
omega_7,9	0.1040632	0.0815635	0.0087388	0.3123509	216.92510	1.061620
omega_7,10	0.0764455	0.0749176	0.0048169	0.2926766	238.54088	1.067370
omega_7,11	0.2015261	0.0913016	0.0616111	0.4060616	884.29887	1.026027
omega_8,1	0.4128884	0.1474164	0.1436313	0.7140310	338.69192	1.039171
omega_8,2	0.3950993	0.1594233	0.1335830	0.7436567	269.40322	1.051031
omega_8,3	0.3825030	0.1505054	0.1265623	0.7120714	1091.05444	1.140212
omega_8,4	0.0529237	0.0503050	0.0037269	0.1937380	232.33476	1.053419
omega_8,5	0.1013690	0.0678740	0.0157759	0.2691643	295.43610	1.047575
omega_8,6	0.2828795	0.1357306	0.0578848	0.5932944	461.97313	1.043485
omega_8,7	0.4915610	0.1624548	0.1843217	0.8117695	398.54630	1.033289
omega_8,8	0.3831429	0.1653718	0.0904927	0.7354181	427.96452	1.057516
omega_8,9	0.2226681	0.1205674	0.0480125	0.5019884	352.73593	1.039116
omega_8,10	0.1750102	0.1146466	0.0275059	0.4378780	158.10374	1.082086
omega_8,11	0.3373776	0.1440750	0.1164414	0.6461653	164.54706	1.077900
omega_9,1	0.2432589	0.0706694	0.1249060	0.4034745	563.29668	1.029810
omega_9,2	0.1880663	0.0744627	0.0587798	0.3535053	754.91690	1.019413
omega_9,3	0.1405451	0.0660111	0.0429079	0.2909500	252.84757	1.063501

Table 28: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
omega_9,4	0.0161889	0.0160414	0.0011366	0.0624602	494.97514	1.041361
omega_9,5	0.0504451	0.0328881	0.0100011	0.1321510	316.47546	1.040078
omega_9,6	0.1790850	0.0704235	0.0592148	0.3434302	607.93049	1.039046
omega_9,7	0.3026825	0.0907099	0.1498723	0.5085551	601.79324	1.028336
omega_9,8	0.2991491	0.1205207	0.1013467	0.5674991	347.75492	1.043316
omega_9,9	0.0986893	0.0630407	0.0121233	0.2357254	151.26156	1.084123
omega_9,10	0.0679231	0.0535511	0.0066661	0.1974196	162.15066	1.077396
omega_9,11	0.1458901	0.0575413	0.0584459	0.2803964	386.94178	1.035368
omega_10,1	0.2109918	0.0405406	0.1329628	0.2931608	888.64043	1.027410
omega_10,2	0.1645911	0.0635627	0.0566029	0.3002677	154.92693	1.082852
omega_10,3	0.2295097	0.0595047	0.1261193	0.3624347	447.91407	1.034524
omega_10,4	0.0254867	0.0161640	0.0050576	0.0676876	1565.18929	1.048514
omega_10,5	0.0588615	0.0374078	0.0110402	0.1493764	202.63281	1.062736
omega_10,6	0.0753288	0.0326195	0.0288163	0.1520611	339.79196	1.039023
omega_10,7	0.3450934	0.0638322	0.2242576	0.4736779	453.54391	1.033481
omega_10,8	0.3314183	0.0720796	0.2031397	0.4899508	2173.63735	1.027928
omega_10,9	0.1147327	0.0748657	0.0148131	0.2998550	94.10175	1.142406
omega_10,10	0.0726336	0.0534316	0.0093927	0.2184133	356.89894	1.044086
omega_10,11	0.1818269	0.0467808	0.1010316	0.2850247	427.74376	1.033233
omega_11,1	0.3329275	0.0246074	0.2867190	0.3783719	180.03578	1.071602
omega_11,2	0.3429428	0.0268578	0.2916403	0.3940061	196.64637	1.062205
omega_11,3	0.3287771	0.0353985	0.2563759	0.3956150	285.17901	1.046556
omega_11,4	0.0589109	0.0307425	0.0179105	0.1349408	157.81175	1.078800
omega_11,5	0.0821218	0.0357968	0.0314615	0.1644996	127.52931	1.101239
omega_11,6	0.1835395	0.0302374	0.1297733	0.2399595	120.68169	1.105180
omega_11,7	0.3595499	0.0309582	0.2971261	0.4125155	154.12501	1.087182
omega_11,8	0.2391263	0.0290997	0.1844739	0.3002350	2332.98822	1.072023
omega_11,9	0.1984991	0.0582575	0.0844870	0.3062892	87.99676	1.154011
omega_11,10	0.1838275	0.0552613	0.0840611	0.2982589	254.23623	1.051258
omega_11,11	0.2562519	0.0312398	0.1963327	0.3115225	149.63579	1.085112
omega_12,1	0.2923919	0.0200413	0.2509951	0.3330496	311.09714	1.117718
omega_12,2	0.2391333	0.0217574	0.1986546	0.2804570	124.64653	1.101480
omega_12,3	0.2573557	0.0276132	0.1996320	0.3112289	1565.94734	1.106198
omega_12,4	0.0316821	0.0228189	0.0054723	0.0854776	106.02040	1.125245
omega_12,5	0.0570922	0.0261334	0.0188649	0.1187541	459.42085	1.062703
omega_12,6	0.1864392	0.0240804	0.1413063	0.2380232	1549.91724	1.054146
omega_12,7	0.3044908	0.0257769	0.2469538	0.3544780	195.41037	1.069250
omega_12,8	0.2326199	0.0276991	0.1699760	0.2900296	188.41584	1.156869
omega_12,9	0.1476678	0.0455748	0.0602347	0.2358251	340.15485	1.040644
omega_12,10	0.1241431	0.0465442	0.0464617	0.2266483	759.72888	1.051076
omega_12,11	0.1986008	0.0236867	0.1527912	0.2451861	333.25441	1.103747
omega_13,1	0.2508506	0.0214324	0.2141631	0.2933513	153.97182	1.083413
omega_13,2	0.1816431	0.0198575	0.1424498	0.2205779	494.72309	1.040192
omega_13,3	0.2148925	0.0258313	0.1685640	0.2665359	298.93237	1.043082
omega_13,4	0.0282305	0.0162445	0.0068535	0.0688049	121.37444	1.104382
omega_13,5	0.1209667	0.0305286	0.0642264	0.1803561	569.91129	1.030845
omega_13,6	0.1589969	0.0272938	0.1118121	0.2140984	185.71558	1.069810

Table 28: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
omega_13,7	0.2888028	0.0279167	0.2383227	0.3452232	354.89637	1.038544
omega_13,8	0.2802600	0.0321578	0.2229499	0.3452296	234.89997	1.056792
omega_13,9	0.1233766	0.0484312	0.0405200	0.2271862	500.79844	1.042888
omega_13,10	0.0820445	0.0379019	0.0259093	0.1826574	406.87456	1.065028
omega_13,11	0.1850264	0.0236464	0.1404486	0.2344114	219.19784	1.058534
omega_14,1	0.2600461	0.0311399	0.2007282	0.3235590	126.11564	1.100070
omega_14,2	0.1823202	0.0302101	0.1274890	0.2405936	112.53981	1.115802
omega_14,3	0.2185291	0.0368050	0.1513175	0.2974982	138.95580	1.089540
omega_14,4	0.0239833	0.0175666	0.0043877	0.0701994	95.81988	1.135722
omega_14,5	0.0484856	0.0256735	0.0125668	0.1147994	1330.01615	1.085336
omega_14,6	0.2002436	0.0423942	0.1286611	0.2857504	224.13318	1.056129
omega_14,7	0.3164960	0.0430559	0.2387385	0.4046863	299.06357	1.058733
omega_14,8	0.2850980	0.0407264	0.2101749	0.3686337	1116.72276	1.029374
omega_14,9	0.1372534	0.0569245	0.0422938	0.2419325	109.21027	1.118275
omega_14,10	0.0942040	0.0513617	0.0215804	0.2092796	131.90844	1.098635
omega_14,11	0.1885945	0.0339466	0.1228750	0.2574785	212.11556	1.060224
omega_15,1	0.2629165	0.0804825	0.1178674	0.4347502	1076.44935	1.017408
omega_15,2	0.2624348	0.0958310	0.0997339	0.4751364	837.81666	1.048326
omega_15,3	0.2250517	0.0944767	0.0692071	0.4289485	478.54397	1.029979
omega_15,4	0.0269000	0.0324092	0.0012983	0.1129056	384.85801	1.033517
omega_15,5	0.0812507	0.0526800	0.0108168	0.2020756	218.53755	1.057445
omega_15,6	0.2034208	0.0997901	0.0379902	0.4404789	207.01839	1.062488
omega_15,7	0.4138559	0.1222328	0.1942472	0.6690890	387.46403	1.032868
omega_15,8	0.3893173	0.1571665	0.1199592	0.7172896	352.56784	1.038356
omega_15,9	0.1515097	0.0980257	0.0153564	0.3777024	109.47741	1.123493
omega_15,10	0.0987662	0.0766326	0.0080776	0.2881454	267.88206	1.049901
omega_15,11	0.2440915	0.1000944	0.0897030	0.4714605	317.03348	1.042919
omega_16,1	0.1476610	0.1022962	0.0192819	0.4105388	1772.02888	1.117884
omega_16,2	0.1652942	0.1155630	0.0197806	0.4537517	264.97420	1.065162
omega_16,3	0.1388972	0.0930634	0.0141851	0.3773107	1286.80067	1.054796
omega_16,4	0.0172211	0.0207755	0.0006760	0.0737486	1012.86222	1.025177
omega_16,5	0.0498066	0.0443157	0.0040235	0.1616770	255.33338	1.091415
omega_16,6	0.1180905	0.0898001	0.0133886	0.3557988	1637.79063	1.057617
omega_16,7	0.2775393	0.1596473	0.0427649	0.6317871	218.14659	1.058910
omega_16,8	0.2635172	0.1675105	0.0323760	0.6170825	173.51571	1.082609
omega_16,9	0.0936515	0.0850418	0.0034565	0.2896200	108.58793	1.122026
omega_16,10	0.0632587	0.0648103	0.0028103	0.2501739	1747.60518	1.089581
omega_16,11	0.1401881	0.0966882	0.0203747	0.3889556	1152.49657	1.025468
omega_17,1	0.2287423	0.0475021	0.1401717	0.3293485	599.93819	1.025510
omega_17,2	0.2394970	0.0509849	0.1494173	0.3459659	450.28680	1.094043
omega_17,3	0.1843809	0.0740560	0.0640499	0.3313454	162.19561	1.109482
omega_17,4	0.0135432	0.0138064	0.0008267	0.0505882	252.04844	1.052024
omega_17,5	0.0547961	0.0339921	0.0101071	0.1377797	419.24779	1.032958
omega_17,6	0.1647592	0.0692431	0.0638084	0.3195746	147.39016	1.088898
omega_17,7	0.3617676	0.0929224	0.2039769	0.5799987	2031.68083	1.111636
omega_17,8	0.3334087	0.1101076	0.1484938	0.5961299	970.43072	1.123639
omega_17,9	0.0998230	0.0741102	0.0095817	0.2923430	89.39963	1.159257

Table 28: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
omega_17,10	0.0613769	0.0535038	0.0054605	0.2153992	178.48417	1.070998
omega_17,11	0.1713230	0.0644795	0.0728273	0.3389322	806.71461	1.052585
omega_18,1	0.2662500	0.0375724	0.2019178	0.3451081	241.23392	1.052293
omega_18,2	0.2617849	0.0466744	0.1706600	0.3523196	87.84228	1.152618
omega_18,3	0.2606322	0.0528779	0.1508471	0.3669832	181.58605	1.070793
omega_18,4	0.0420804	0.0310507	0.0068898	0.1287081	594.31811	1.026376
omega_18,5	0.0802649	0.0451199	0.0173637	0.1903760	1355.64643	1.041656
omega_18,6	0.1928852	0.0668895	0.0795464	0.3384528	1034.49471	1.028594
omega_18,7	0.3338366	0.0568612	0.2352054	0.4541166	345.99185	1.041732
omega_18,8	0.2494863	0.0724901	0.1269004	0.4102211	198.12504	1.063936
omega_18,9	0.1726313	0.0580363	0.0658346	0.2902750	331.92207	1.041291
omega_18,10	0.1302898	0.0598091	0.0374685	0.2564813	163.97192	1.076650
omega_18,11	0.2542782	0.0540716	0.1610294	0.3674605	317.01448	1.043892
omega_19,1	0.3182040	0.0523535	0.2261834	0.4206260	206.75793	1.061636
omega_19,2	0.2956944	0.0544337	0.1924250	0.4024784	720.89220	1.135818
omega_19,3	0.2968879	0.0596184	0.1849439	0.4126537	368.64305	1.156940
omega_19,4	0.0663324	0.0414959	0.0119096	0.1710242	1504.65037	1.088287
omega_19,5	0.0947174	0.0534551	0.0185389	0.2139743	300.71596	1.045267
omega_19,6	0.1945836	0.0674188	0.0803626	0.3382150	309.28816	1.067604
omega_19,7	0.3335511	0.0637344	0.2244802	0.4600555	187.99280	1.068283
omega_19,8	0.2538140	0.0635362	0.1449628	0.3861946	182.12017	1.068514
omega_19,9	0.2030059	0.0572355	0.1020374	0.3142608	215.87900	1.062693
omega_19,10	0.1785060	0.0620053	0.0686224	0.3031300	158.38105	1.079138
omega_19,11	0.3130376	0.0592052	0.1986790	0.4313014	573.77382	1.041833
upsilon_1,1	0.2199762	0.1036350	0.0523240	0.4472267	613.68349	1.092191
upsilon_1,2	0.1222689	0.0774525	0.0212836	0.3091226	368.30786	1.042782
upsilon_1,3	0.0361228	0.0305826	0.0030139	0.1211546	178.66305	1.071481
upsilon_1,4	0.0003919	0.0006137	0.0000044	0.0018293	243.71726	1.054133
upsilon_1,5	0.0108116	0.0092812	0.0012724	0.0352079	851.06482	1.033955
upsilon_1,6	0.1141329	0.0593576	0.0321210	0.2607019	355.66956	1.048431
upsilon_1,7	0.1312930	0.0615570	0.0413086	0.2721080	214.94556	1.115407
upsilon_1,8	0.2402329	0.1337901	0.0363497	0.5442808	488.43489	1.032460
upsilon_1,9	0.0060368	0.0080042	0.0001309	0.0288362	209.21256	1.059388
upsilon_1,10	0.0001632	0.0003960	0.0000000	0.0014793	78.29962	1.174880
upsilon_1,11	0.1185699	0.0690885	0.0273241	0.2915431	2104.29931	1.094043
upsilon_2,1	0.2200683	0.0374140	0.1504552	0.2908441	278.51195	1.047818
upsilon_2,2	0.2007569	0.0391674	0.1286649	0.2831486	296.93567	1.045383
upsilon_2,3	0.0691487	0.0193537	0.0381855	0.1134655	383.37519	1.034129
upsilon_2,4	0.0005088	0.0003552	0.0001223	0.0013951	258.27677	1.050240
upsilon_2,5	0.0041719	0.0019586	0.0015434	0.0096193	1081.34083	1.023320
upsilon_2,6	0.0377671	0.0109579	0.0198982	0.0632495	378.91714	1.047202
upsilon_2,7	0.0799130	0.0179920	0.0516410	0.1202440	167.12879	1.079168
upsilon_2,8	0.2477282	0.0541952	0.1529631	0.3664786	389.40721	1.037284
upsilon_2,9	0.0213866	0.0084049	0.0095585	0.0406072	174.58299	1.071046
upsilon_2,10	0.0001129	0.0001106	0.0000107	0.0004109	143.07916	1.090383
upsilon_2,11	0.1184375	0.0279515	0.0710986	0.1808661	1767.37854	1.023933

Table 28: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
upsilon_3,1	0.1835641	0.0309472	0.1283759	0.2514925	2437.73647	1.080765
upsilon_3,2	0.1401919	0.0277512	0.0892480	0.1984507	952.19104	1.034739
upsilon_3,3	0.0457925	0.0128464	0.0241419	0.0730124	206.01751	1.062096
upsilon_3,4	0.0005619	0.0003790	0.0001275	0.0015493	652.16585	1.023739
upsilon_3,5	0.0067181	0.0028330	0.0024574	0.0133783	529.05893	1.025863
upsilon_3,6	0.0192560	0.0067837	0.0092113	0.0355830	549.48354	1.034715
upsilon_3,7	0.0461574	0.0111584	0.0284843	0.0713676	221.92460	1.059253
upsilon_3,8	0.1941536	0.0403586	0.1223519	0.2820441	1446.92230	1.032271
upsilon_3,9	0.0060329	0.0028717	0.0022250	0.0131535	352.36836	1.037490
upsilon_3,10	0.0000397	0.0000418	0.0000030	0.0001505	644.55212	1.027910
upsilon_3,11	0.3575319	0.0484325	0.2639436	0.4554898	1282.36742	1.063353
upsilon_4,1	0.2754427	0.0417738	0.2012876	0.3679519	881.78724	1.020247
upsilon_4,2	0.1355640	0.0313895	0.0798418	0.2020878	394.95808	1.034212
upsilon_4,3	0.0607734	0.0167676	0.0326967	0.0990331	903.24924	1.045502
upsilon_4,4	0.0007730	0.0006427	0.0000779	0.0025005	1375.67833	1.035457
upsilon_4,5	0.0054570	0.0031226	0.0015767	0.0145581	233.13517	1.077579
upsilon_4,6	0.0571168	0.0152722	0.0308482	0.0911579	703.27346	1.070994
upsilon_4,7	0.0784316	0.0170595	0.0493962	0.1154169	556.12932	1.077896
upsilon_4,8	0.1379069	0.0395953	0.0730016	0.2248680	322.33514	1.043825
upsilon_4,9	0.0052351	0.0033094	0.0009830	0.0140233	1610.91449	1.127475
upsilon_4,10	0.0001690	0.0001630	0.0000232	0.0006068	174.01480	1.073678
upsilon_4,11	0.2431304	0.0440011	0.1594992	0.3300714	198.78417	1.062779
upsilon_5,1	0.1870868	0.0382531	0.1192114	0.2725767	2802.03342	1.086125
upsilon_5,2	0.1168104	0.0341325	0.0602419	0.1963106	212.39122	1.131916
upsilon_5,3	0.0761037	0.0233548	0.0372476	0.1292674	964.81237	1.089436
upsilon_5,4	0.0007888	0.0005305	0.0001542	0.0021994	330.21204	1.084955
upsilon_5,5	0.0087728	0.0039670	0.0030716	0.0181949	666.05242	1.025673
upsilon_5,6	0.0612214	0.0169506	0.0325682	0.0989156	421.04850	1.032733
upsilon_5,7	0.0911383	0.0225862	0.0529906	0.1399070	415.34486	1.054612
upsilon_5,8	0.2262903	0.0563300	0.1302150	0.3537330	488.62510	1.074144
upsilon_5,9	0.0039634	0.0031322	0.0007900	0.0117747	201.17549	1.067524
upsilon_5,10	0.0002537	0.0002439	0.0000244	0.0009298	252.34422	1.075837
upsilon_5,11	0.2275705	0.0449898	0.1489263	0.3283286	2625.85701	1.054807
upsilon_6,1	0.2269069	0.0405603	0.1517611	0.3156155	1382.66708	1.073849
upsilon_6,2	0.1076631	0.0295254	0.0555134	0.1712965	448.59327	1.044948
upsilon_6,3	0.0409489	0.0131731	0.0214988	0.0713014	223.80438	1.058218
upsilon_6,4	0.0001643	0.0001529	0.0000196	0.0005770	1413.79505	1.061695
upsilon_6,5	0.0067813	0.0030584	0.0025141	0.0144085	419.07104	1.033532
upsilon_6,6	0.0472623	0.0145518	0.0248986	0.0792696	115.22513	1.111629
upsilon_6,7	0.0853046	0.0211734	0.0492668	0.1325850	182.88703	1.070624
upsilon_6,8	0.3140776	0.0630509	0.1979401	0.4367411	191.99953	1.067295
upsilon_6,9	0.0035986	0.0027244	0.0007966	0.0107359	140.97249	1.128799
upsilon_6,10	0.0003410	0.0002144	0.0000887	0.0008916	736.93426	1.043287
upsilon_6,11	0.1669514	0.0388091	0.1028538	0.2498858	198.16755	1.063065
upsilon_7,1	0.1996405	0.0903816	0.0553177	0.4207962	2059.16968	1.055011
upsilon_7,2	0.1091082	0.0713156	0.0193411	0.2857338	588.66306	1.027384
upsilon_7,3	0.0416664	0.0294718	0.0066426	0.1199199	311.41400	1.079130

Table 28: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
upsilon_7,4	0.0003480	0.0006270	0.0000054	0.0018678	485.51192	1.031091
upsilon_7,5	0.0050772	0.0046805	0.0006228	0.0175953	812.73434	1.024345
upsilon_7,6	0.0419902	0.0293796	0.0071041	0.1210407	1674.39543	1.073459
upsilon_7,7	0.0726473	0.0343531	0.0225914	0.1566263	452.12491	1.031694
upsilon_7,8	0.3696949	0.1366248	0.1267416	0.6476255	522.53892	1.040590
upsilon_7,9	0.0054799	0.0066954	0.0001157	0.0236992	127.67981	1.101497
upsilon_7,10	0.0001127	0.0002083	0.0000001	0.0007100	360.86656	1.043060
upsilon_7,11	0.1542346	0.0756517	0.0433022	0.3201600	346.12233	1.106951
upsilon_8,1	0.3294199	0.1045759	0.1303644	0.5441940	183.26017	1.071513
upsilon_8,2	0.1891999	0.0912208	0.0541665	0.4105716	1040.86395	1.022694
upsilon_8,3	0.0501037	0.0345148	0.0048595	0.1327066	225.19425	1.068643
upsilon_8,4	0.0022092	0.0027232	0.0001070	0.0097154	946.97587	1.108413
upsilon_8,5	0.0113846	0.0104655	0.0013659	0.0456493	189.11259	1.103424
upsilon_8,6	0.0385444	0.0261163	0.0065854	0.1027180	806.53222	1.129012
upsilon_8,7	0.0580466	0.0307363	0.0138594	0.1274146	281.36459	1.045234
upsilon_8,8	0.1527429	0.0992437	0.0182397	0.3905883	541.62923	1.027229
upsilon_8,9	0.0046054	0.0063491	0.0000101	0.0208029	324.59895	1.042094
upsilon_8,10	0.0002951	0.0005094	0.0000003	0.0017754	157.79290	1.079445
upsilon_8,11	0.1634483	0.0881788	0.0286709	0.3627970	80.22739	1.170791
upsilon_9,1	0.4164365	0.1005127	0.2476528	0.6127485	166.95435	1.076905
upsilon_9,2	0.1395917	0.0652489	0.0372667	0.2826553	311.80339	1.056362
upsilon_9,3	0.0143333	0.0123656	0.0004418	0.0456140	88.44314	1.154099
upsilon_9,4	0.0016141	0.0017720	0.0000963	0.0063399	385.89380	1.051565
upsilon_9,5	0.0109620	0.0080951	0.0016100	0.0319277	243.71009	1.052370
upsilon_9,6	0.0589736	0.0311295	0.0130940	0.1311069	254.90415	1.061090
upsilon_9,7	0.0724211	0.0308253	0.0276177	0.1487647	1114.01200	1.078997
upsilon_9,8	0.1184642	0.0811155	0.0125336	0.3128650	465.85350	1.036228
upsilon_9,9	0.0066255	0.0063539	0.0004516	0.0224494	226.77240	1.057478
upsilon_9,10	0.0002730	0.0003773	0.0000086	0.0013715	163.14760	1.077365
upsilon_9,11	0.1603050	0.0673982	0.0570693	0.3165587	287.57290	1.070919
upsilon_10,1	0.3354559	0.0787216	0.1861166	0.4772412	201.09704	1.062423
upsilon_10,2	0.0358757	0.0214534	0.0057520	0.0915219	138.98265	1.093846
upsilon_10,3	0.0394143	0.0169497	0.0144046	0.0797811	497.94595	1.031249
upsilon_10,4	0.0021540	0.0015869	0.0003904	0.0062192	1267.39475	1.089826
upsilon_10,5	0.0044994	0.0032302	0.0006945	0.0131755	829.19251	1.067025
upsilon_10,6	0.0152132	0.0086664	0.0044434	0.0376811	253.32958	1.051488
upsilon_10,7	0.0476013	0.0158002	0.0232153	0.0865337	1962.16266	1.041112
upsilon_10,8	0.3874593	0.1024522	0.2012264	0.5950490	451.79403	1.064325
upsilon_10,9	0.0005522	0.0007971	0.0000008	0.0027575	313.85277	1.042773
upsilon_10,10	0.0001361	0.0001502	0.0000082	0.0005778	213.63153	1.059968
upsilon_10,11	0.1316386	0.0443242	0.0599538	0.2303439	320.96849	1.043021
upsilon_11,1	0.2773341	0.0358664	0.2083056	0.3458284	440.06871	1.030174
upsilon_11,2	0.3045144	0.0386222	0.2340517	0.3821158	181.77258	1.069327
upsilon_11,3	0.0290439	0.0081217	0.0161275	0.0476662	526.26416	1.035552
upsilon_11,4	0.0013418	0.0008414	0.0003564	0.0034566	155.80476	1.078904
upsilon_11,5	0.0032356	0.0017037	0.0010728	0.0072946	128.74306	1.100723
upsilon_11,6	0.0327847	0.0086270	0.0181423	0.0518367	297.11606	1.052424

Table 28: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
upsilon_11,7	0.0519228	0.0102374	0.0346007	0.0737678	524.65123	1.048678
upsilon_11,8	0.1811822	0.0357136	0.1194736	0.2561872	352.17157	1.038242
upsilon_11,9	0.0013682	0.0008593	0.0002615	0.0034207	264.74779	1.074792
upsilon_11,10	0.0002702	0.0001415	0.0000797	0.0006195	241.32989	1.055778
upsilon_11,11	0.1170021	0.0236523	0.0762471	0.1665363	253.70555	1.050891
upsilon_12,1	0.2091602	0.0277158	0.1614154	0.2671974	320.71539	1.045077
upsilon_12,2	0.4506253	0.0403379	0.3695841	0.5230548	239.69695	1.055629
upsilon_12,3	0.0359367	0.0076653	0.0224281	0.0525850	852.68940	1.044382
upsilon_12,4	0.0005431	0.0004063	0.0000847	0.0014212	142.20837	1.091114
upsilon_12,5	0.0025817	0.0014404	0.0007505	0.0062288	240.69728	1.052930
upsilon_12,6	0.0239875	0.0055983	0.0144127	0.0364696	925.63860	1.068629
upsilon_12,7	0.0314812	0.0065897	0.0199185	0.0447067	149.75889	1.085223
upsilon_12,8	0.1623952	0.0282093	0.1135807	0.2224061	447.59056	1.062525
upsilon_12,9	0.0011956	0.0006526	0.0003135	0.0027960	663.91877	1.037258
upsilon_12,10	0.0000772	0.0000461	0.0000174	0.0001917	1079.73840	1.041611
upsilon_12,11	0.0820163	0.0143545	0.0555018	0.1132946	3475.74764	1.069394
upsilon_13,1	0.2051059	0.0272094	0.1557654	0.2613048	2961.69748	1.066856
upsilon_13,2	0.3718822	0.0450417	0.2851923	0.4622345	384.95059	1.035216
upsilon_13,3	0.0468983	0.0097953	0.0309304	0.0689398	372.51623	1.037780
upsilon_13,4	0.0006929	0.0004387	0.0001600	0.0018088	184.68005	1.065833
upsilon_13,5	0.0101562	0.0033535	0.0045053	0.0173549	363.33953	1.037300
upsilon_13,6	0.0268233	0.0076916	0.0147726	0.0441581	126.96589	1.103169
upsilon_13,7	0.0333692	0.0078835	0.0180341	0.0502204	144.37391	1.086763
upsilon_13,8	0.1932693	0.0347238	0.1296836	0.2658176	605.35964	1.054352
upsilon_13,9	0.0011166	0.0007350	0.0002034	0.0030325	269.94877	1.068448
upsilon_13,10	0.0001191	0.0000751	0.0000258	0.0003121	252.12035	1.053775
upsilon_13,11	0.1105669	0.0199054	0.0750451	0.1533383	448.92314	1.035376
upsilon_14,1	0.1958540	0.0337822	0.1364047	0.2702635	1846.41630	1.052199
upsilon_14,2	0.3680957	0.0579841	0.2555735	0.4774346	277.61447	1.049285
upsilon_14,3	0.0599458	0.0159306	0.0345545	0.0959845	520.55452	1.085754
upsilon_14,4	0.0007028	0.0005759	0.0001000	0.0023195	99.94847	1.128460
upsilon_14,5	0.0030320	0.0018344	0.0007090	0.0078888	1656.43873	1.099064
upsilon_14,6	0.0317611	0.0115420	0.0157475	0.0593223	122.61342	1.103796
upsilon_14,7	0.0323203	0.0091829	0.0179942	0.0538376	1359.62349	1.053114
upsilon_14,8	0.2279702	0.0521293	0.1332778	0.3393964	210.91260	1.063596
upsilon_14,9	0.0014179	0.0011558	0.0001659	0.0044267	749.21477	1.049219
upsilon_14,10	0.0000521	0.0000549	0.0000028	0.0002088	1731.08468	1.113067
upsilon_14,11	0.0788480	0.0210121	0.0421648	0.1234938	376.47684	1.036835
upsilon_15,1	0.3748307	0.1026294	0.1806960	0.5780425	535.76538	1.083089
upsilon_15,2	0.2290566	0.0935769	0.0646222	0.4305972	242.80223	1.049992
upsilon_15,3	0.0472208	0.0334708	0.0065693	0.1227272	106.24869	1.127534
upsilon_15,4	0.0005639	0.0011061	0.0000034	0.0031025	108.67700	1.120647
upsilon_15,5	0.0040886	0.0039524	0.0002687	0.0146860	253.81501	1.052668
upsilon_15,6	0.0361963	0.0262624	0.0056346	0.1005193	201.78237	1.061610
upsilon_15,7	0.0717987	0.0375884	0.0217274	0.1607321	242.76943	1.053057
upsilon_15,8	0.1468907	0.1124567	0.0157467	0.4231864	113.32130	1.114063

Table 28: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat
upsilon_15,9	0.0029474	0.0044649	0.0000094	0.0133743	198.39558	1.066979
upsilon_15,10	0.0001503	0.0002618	0.0000001	0.0008863	535.83456	1.052202
upsilon_15,11	0.0862559	0.0556694	0.0152828	0.2247133	453.50515	1.030282
upsilon_16,1	0.2783969	0.1208077	0.0659499	0.5193313	100.62290	1.129084
upsilon_16,2	0.2001718	0.1207682	0.0366146	0.5346522	85.82651	1.174362
upsilon_16,3	0.0545322	0.0342582	0.0099039	0.1419133	630.97693	1.029766
upsilon_16,4	0.0018206	0.0022945	0.0000773	0.0075849	480.12343	1.033416
upsilon_16,5	0.0058470	0.0059987	0.0005219	0.0218655	282.31264	1.045516
upsilon_16,6	0.0498720	0.0360920	0.0085394	0.1378930	141.06453	1.091522
upsilon_16,7	0.0678899	0.0387286	0.0158800	0.1579904	522.45141	1.034028
upsilon_16,8	0.2162230	0.1371544	0.0183086	0.5498066	343.17974	1.086421
upsilon_16,9	0.0045511	0.0074098	0.0000053	0.0308458	164.25376	1.082574
upsilon_16,10	0.0002491	0.0004711	0.0000003	0.0014213	341.61826	1.105021
upsilon_16,11	0.1204465	0.0713385	0.0248962	0.3033265	286.93722	1.045180
upsilon_17,1	0.3582040	0.0760784	0.2122482	0.5077667	263.70995	1.047847
upsilon_17,2	0.4407667	0.0789590	0.2840457	0.5949285	2217.27195	1.077087
upsilon_17,3	0.0114795	0.0092396	0.0010005	0.0355316	393.79581	1.033412
upsilon_17,4	0.0001374	0.0002292	0.0000012	0.0007539	383.08504	1.036408
upsilon_17,5	0.0017720	0.0015386	0.0002009	0.0058650	570.55479	1.059147
upsilon_17,6	0.0336282	0.0194054	0.0095100	0.0812660	155.82379	1.081938
upsilon_17,7	0.0468116	0.0218355	0.0177499	0.1033915	1676.74197	1.066358
upsilon_17,8	0.0740590	0.0548034	0.0085399	0.2127144	380.13656	1.105564
upsilon_17,9	0.0009831	0.0017564	0.0000009	0.0052153	200.39337	1.156871
upsilon_17,10	0.0000445	0.0000897	0.0000001	0.0002762	696.31460	1.095470
upsilon_17,11	0.0321141	0.0216110	0.0051571	0.0861902	264.07509	1.048842
upsilon_18,1	0.4049503	0.0623354	0.2760919	0.5251146	194.33384	1.064145
upsilon_18,2	0.2920065	0.0628928	0.1830049	0.4277183	167.80119	1.074832
upsilon_18,3	0.0565002	0.0201466	0.0262237	0.1048506	576.99101	1.028758
upsilon_18,4	0.0005917	0.0006128	0.0000553	0.0022287	842.68002	1.028984
upsilon_18,5	0.0034989	0.0024853	0.0005493	0.0099395	1068.50588	1.025765
upsilon_18,6	0.0336955	0.0169306	0.0096307	0.0753115	2570.86255	1.087862
upsilon_18,7	0.0424582	0.0151170	0.0204581	0.0778266	361.53680	1.042544
upsilon_18,8	0.0846638	0.0425575	0.0246447	0.1877819	1332.62320	1.080629
upsilon_18,9	0.0010567	0.0013361	0.0000028	0.0041665	166.45934	1.101476
upsilon_18,10	0.0001472	0.0001541	0.0000080	0.0005736	160.31356	1.079706
upsilon_18,11	0.0804310	0.0313930	0.0300988	0.1443419	157.61451	1.083719
upsilon_19,1	0.2788746	0.0617001	0.1799812	0.4114034	197.67829	1.066153
upsilon_19,2	0.3123907	0.0772554	0.1711461	0.4737765	303.80723	1.046793
upsilon_19,3	0.0516429	0.0316646	0.0167031	0.1587460	92.07983	1.176003
upsilon_19,4	0.0019644	0.0016584	0.0002441	0.0064159	2024.33733	1.090215
upsilon_19,5	0.0042635	0.0032163	0.0005715	0.0118491	181.29180	1.088658
upsilon_19,6	0.0237942	0.0127422	0.0057333	0.0549521	2001.39311	1.121462
upsilon_19,7	0.0481610	0.0174412	0.0220530	0.0913015	615.88368	1.053446
upsilon_19,8	0.1760807	0.0692260	0.0700794	0.3242798	203.65453	1.061697
upsilon_19,9	0.0013980	0.0019350	0.0000017	0.0066260	164.20492	1.081016
upsilon_19,10	0.0000980	0.0001325	0.0000001	0.0004542	376.59821	1.084291
upsilon_19,11	0.1013320	0.0385077	0.0409445	0.1825642	177.13254	1.070848

Table 28: (continued)

Parameter	mean	sd	q2.5	q97.5	N_eff	rhat