

HW2

mushroom

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目錄

Variable Definition

Variable	Data type	Definition	Note
family name class	character character factor	蘑菇物種所屬科的名稱 蘑菇物種名稱 是否可食用	poisonous=p, edible=e
cap.diameter	numerical	菌蓋直徑	two values=min max, one value=mean
cap.shape	factor	菌蓋形狀	bell=b, conical=c, convex=x, flat=f, sunken=s,
cap.surface	factor	菌蓋表面	spherical=p, others=o fibrous=i, grooves=g, scaly=y, smooth=s, shiny=h, leathery=l, silky=k, sticky=t, wrinkled=w, fleshy=e
cap.color	factor	菌蓋顏色	brown=n, buff=b, gray=g, green=r, pink=p, purple=u, red=e, white=w, yellow=y, blue=l, orange=o, black=k
does.bruise.or.bleed	factor	是否變色或流汁	bruises-or- bleeding=t,no=f
gill.attachment	factor	菌褶連接方式	adnate=a, adnexed=x, decurrent=d, free=e, sinuate=s, pores=p, none=f, unknown=?
gill.spacing	factor	菌褶間距	close=c, distant=d, none=f
gill.color	factor	菌褶顏色	see cap-color + none=f
stem.height	numerical	菌柄高度	float number(s) in cm two values=min max, one value=mean

Variable	Data type	Definition	Note
stem.width	numerical	菌柄寬度	float number(s) in cm two values=min max, one value=mean
stem.root	factor	菌柄基部形狀	bulbous=b, swollen=s, club=c, cup=u, equal=e, rhizomorphs=z, rooted=r
stem.surface	factor	菌柄表面	see cap-surface + none=f
stem.color	factor	菌柄顏色	see cap-color + none=f
veil.type	factor	菌幕類型	partial=p, universal=u
veil.color	factor	菌幕顏色	see cap-color + none=f
has.ring	factor	是否有菌環	ring=t, none=f
ring.type	factor	菌環類型	cobwebby=c, evanescent=e, flaring=r, grooved=g, large=l, pendant=p, sheathing=s, zone=z, scaly=y, movable=m, none=f, unknown=?
spore.print.color	factor	孢子印顏色	see cap color
habitat	factor	生長環境	grasses=g, leaves=l, meadows=m, paths=p, heaths=h, urban=u, waste=w, woods=d
season	factor	生長季節	spring=s, summer=u, autumn=a, winter=w

圖1、Data Dictionary

```
library(Hmisc)
library(xtable)
library(kableExtra)
library(tidyverse)
mushroom = read.csv("primary_data.csv",header = T)
```

Data description

本筆mushroom的資料集包含173筆資料及23個變數，原始資料資訊接包含於中括號內，因此資料前處理第一步是將中括號內的資料提取出來，接下來將變數cap.diameter、stem.width、stem.height包含最大值、最小值或平均的數值類型的資料提取出來並為之命名為相對應意義的變數如min.cap.diameter。處理完後才進行敘述統計的部分。

```
# R Interface to Python
clean_column <- function(x) {
  x <- gsub("\\[|\\]", "", x) #
  return(x)
}
```

```
#
mushroom <- mushroom %>% mutate(across(everything(), clean_column))

# cap-diameter
if ("cap.diameter" %in% names(mushroom)) {
  mushroom <- mushroom %>%
    separate(`cap.diameter`, into = c("min.cap.diameter", "max.cap.diameter"), sep = ", ", convert = TRUE)
}
num_cols <- c("min.cap.diameter", "max.cap.diameter")
mushroom[num_cols] <- lapply(mushroom[num_cols], as.numeric)

if ("stem.width" %in% names(mushroom)) {
  mushroom <- mushroom %>%
    separate(`stem.width`, into = c("min.stem.width", "max.stem.width"), sep = ", ", convert = TRUE)
}
num_cols <- c("min.stem.width", "max.stem.width")
mushroom[num_cols] <- lapply(mushroom[num_cols], as.numeric)

if ("stem.height" %in% names(mushroom)) {
  mushroom <- mushroom %>%
    separate(`stem.height`, into = c("min.stem.height", "max.stem.height"), sep = ", ", convert = TRUE)
}
num_cols <- c("min.stem.height", "max.stem.height")
mushroom[num_cols] <- lapply(mushroom[num_cols], as.numeric)

latex(describe(mushroom),file="",descript ="Descriptive Statistics" , caption.replacement ="top" )
```

mushroom														
26 Variables 173 Observations														
family														
n	missing	distinct												
173	0	23												
lowest :	Amanita Family				Bolbitius Family				Bolete Family				Bracket Fungi	
highest:	Russula Family				Saddle-Cup Family				Stropharia Family				Tricholoma Family	
name														
n	missing	distinct												
173	0	173												
lowest :	Amethyst Deceiver				Aniseed Funnel Cap				Apricot Fungus				Bare-toothed Russula	
highest:	Yellow-gilled Russula				Yellow-staining Mushroom				Yellow-stemmed Bell Cap				Yellow Swamp Russula	
class														
n	missing	distinct												
173	0	2												
Value	e	p												
Frequency	77	96												
Proportion	0.445	0.555												
min.cap.diameter														
n	missing	distinct	Info	Mean	pMedian	Gmd	.05	.10	.25	.50	.75	.90	.95	
173	0	14	0.976	4.043	3.5	3.038	1	1	2	3	5	7	8	
Value	0.4	0.5	0.7	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	12.0	50.0
Frequency	2	4	1	17	39	24	26	29	11	4	9	4	2	1
Proportion	0.012	0.023	0.006	0.098	0.225	0.139	0.150	0.168	0.064	0.023	0.052	0.023	0.012	0.006
For the frequency table, variable is rounded to the nearest 0														

max.cap.diameter

	n 172	missing 1	distinct 19	Info 0.991	Mean 9.199	pMedian 8.5	Gmd 6.147	.05 2	.10 3	.25 5	.50 8	.75 12	.90 15	.95 20	
Value		1.0	1.3	1.5	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	12.0	14.0
Frequency		3	1	4	7	6	12	18	16	7	16	3	28	18	3
Proportion		0.017	0.006	0.023	0.041	0.035	0.070	0.105	0.093	0.041	0.093	0.017	0.163	0.105	0.017

Value	15.0	18.0	20.0	25.0	30.0
Frequency	15	3	5	5	2
Proportion	0.087	0.017	0.029	0.029	0.012

For the frequency table, variable is rounded to the nearest 0

cap.shape

	n	missing	distinct
	173	0	27

lowest : b b, f b, f, s b, x b, x, f, highest: x, f x, f, s x, o x, p x, s

Cap.surface

	n	missing	distinct
	133	40	40

lowest : d d, e, y, i d, k d, k, s d, s
highest: t, w, d w w, t y y, s

cap.color

	n	missing	distinct
	173	0	67

lowest : b b, p, e, y b, u e, n
highest: y y, n y, o y, o, g, n, r y, o, r, n

does.bruise.or.bleed

	n	missing	distinct
	173	0	2

Value	f	t
Frequency	143	30
Proportion	0.827	0.173

gill.attachment

	n	missing	distinct
	145	28	8

Value	a	a, d	d	e	f	p	s	x
Frequency	32	8	25	16	10	17	16	21
Proportion	0.221	0.055	0.172	0.110	0.069	0.117	0.110	0.145

gill.spacing

	n	missing	distinct
	102	71	3

Value	c	d	f
Frequency	70	22	10
Proportion	0.686	0.216	0.098

gill.color

	n	missing	distinct
	173	0	59

lowest : b b, p, w b, u e f , highest: y, n y, o, e y, r y, r, k y, w

min.stem.height

	n	missing	distinct	Info	Mean	pMedian	Gmd	.05	.10	.25	.50	.75	.90	.95
	173	0	12	0.957	4.306	4	2.233	2.0	2.0	3.0	4.0	5.0	6.8	8.0
Value		0	1	2	3	4	5	6	7	8	10	12	15	
Frequency		3	2	21	38	52	24	15	3	7	5	1	2	
Proportion		0.017	0.012	0.121	0.220	0.301	0.139	0.087	0.017	0.040	0.029	0.006	0.012	

For the frequency table, variable is rounded to the nearest 0

max.stem.height

n	missing	distinct	Info	Mean	pMedian	Gmd	.05	.10	.25	.50	.75	.90	.95	
173	0	19	0.977	8.873	8	4.37	4.0	5.0	6.0	8.0	10.0	14.8	15.0	
Value	0	2	3	4	5	6	7	8	9	10	11	12	14	15
Frequency	3	1	2	6	14	25	16	37	2	35	1	12	1	10
Proportion	0.017	0.006	0.012	0.035	0.081	0.145	0.092	0.214	0.012	0.202	0.006	0.069	0.006	0.058
Value	18	20	25	30	35									
Frequency	1	4	1	1	1									
Proportion	0.006	0.023	0.006	0.006	0.006									

For the frequency table, variable is rounded to the nearest 0

min.stem.width

n	missing	distinct	Info	Mean	pMedian	Gmd	.05	.10	.25	.50				
172	1	16	0.981	8.52	8	6.824	1.00	2.00	3.75	8.00				
Value	0.0	0.5	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	12.0	15.0	20.0
Frequency	3	1	9	18	12	12	19	7	1	10	41	1	20	16
Proportion	0.017	0.006	0.052	0.105	0.070	0.070	0.110	0.041	0.006	0.058	0.238	0.006	0.116	0.093
Value	30.0	40.0												
Frequency	1	1												
Proportion	0.006	0.006												

For the frequency table, variable is rounded to the nearest 0

max.stem.width

n	missing	distinct	Info	Mean	pMedian	Gmd	.05	.10	.25	.50	.75	.90	.95
172	1	21	0.992	15.82	14	13.54	2.00	3.00	7.75	12.00	20.00	30.00	40.00

lowest : 0 1 2 3 4, highest: 40 50 60 80 100

stem.root

n	missing	distinct			
27	146	5			
Value	b	c	f	r	s
Frequency	9	2	3	4	9
Proportion	0.333	0.074	0.111	0.148	0.333

stem.surface

n	missing	distinct																	
65	108	14																	
Value	f	g	h	i	i, s	i, t	i, y	k	k, s	s	s, h	t	y	y, s					
Frequency	3	5	1	11	1	1	1	4	1	15	1	7	13	1					
Proportion	0.046	0.077	0.015	0.169	0.015	0.015	0.015	0.062	0.015	0.231	0.015	0.108	0.200	0.015					

stem.color

n	missing	distinct																	
173	0	41																	
lowest	b, u	e	e, n	e, u, y	e, y														
highest	w, y	y	y, e, n	y, n	y, o, k														

veil.type

n	missing	distinct	value
9	164	1	u
Value	u		
Frequency	9		
Proportion	1		

veil.color

n	missing	distinct																	
21	152	7																	
Value	e, n	k	n	u	w	y	y, w												
Frequency	1	1	1	1	15	1	1												
Proportion	0.048	0.048	0.048	0.048	0.714	0.048	0.048												

has.ring

n	missing	distinct		
173	0	2		
Value	f	t		
Frequency	130	43		
Proportion	0.751	0.249		

ring.type																						
n	missing	distinct																				
166	7	13																				
Value	e	e, g	f	g	g, p	l	l, e	l, p	l, r	m	p	r	z									
Frequency	6	1	137	2	2	2	1	1	2	1	2	3	6									
Proportion	0.036	0.006	0.825	0.012	0.012	0.012	0.006	0.006	0.012	0.006	0.012	0.018	0.036									
Spore.print.color																						
n	missing	distinct																				
18	155	8																				
Value	g	k	k, r	k, u	n	p	p, w	w														
Frequency	1	5	1	1	3	3	1	3														
Proportion	0.056	0.278	0.056	0.056	0.167	0.167	0.056	0.167														
habitat																						
n	missing	distinct																				
173	0	21																				
lowest : d	d, h	g	g, d	g, d, h, highest: m	m, d	m, h	p, d	w														
season																						
n	missing	distinct																				
173	0	10																				
Value	a	a, w	s	s, a, w	s, u	s, u, a	s, u, a, w															
Frequency	16	15	1	1	3	5	13															
Proportion	0.092	0.087	0.006	0.006	0.017	0.029	0.075															
Value	u	u, a	u, a, w																			
Frequency	1	106	12																			
Proportion	0.006	0.613	0.069																			

Table 1

```
# R Interface to Python
library(table1)
library(knitr)
tb1 = table1(~ .|class,data = mushroom)
kable(tb1)
```

	e	p	Overall
	(N=77)	(N=96)	(N=173)
family			
Amanita Family	3 (3.9%)	5 (5.2%)	8 (4.6%)
Bolbitius Family	1 (1.3%)	2 (2.1%)	3 (1.7%)
Bolete Family	11 (14.3%)	3 (3.1%)	14 (8.1%)
Bracket Fungi	1 (1.3%)	6 (6.3%)	7 (4.0%)
Chanterelle Family	3 (3.9%)	0 (0%)	3 (1.7%)
Entoloma Family	1 (1.3%)	6 (6.3%)	7 (4.0%)
Hydnum Family	1 (1.3%)	0 (0%)	1 (0.6%)
Ink Cap Family	6 (7.8%)	7 (7.3%)	13 (7.5%)
Lepiota Family	2 (2.6%)	1 (1.0%)	3 (1.7%)
Morel Family	1 (1.3%)	0 (0%)	1 (0.6%)
Mushroom Family	4 (5.2%)	1 (1.0%)	5 (2.9%)
Oyster Mushroom Family	2 (2.6%)	0 (0%)	2 (1.2%)
Pluteus Family	2 (2.6%)	0 (0%)	2 (1.2%)
Russula Family	11 (14.3%)	16 (16.7%)	27 (15.6%)
Stropharia Family	1 (1.3%)	7 (7.3%)	8 (4.6%)
Tricholoma Family	23 (29.9%)	20 (20.8%)	43 (24.9%)
Wax Gill Family	4 (5.2%)	4 (4.2%)	8 (4.6%)

	e	p	Overall
Cortinarius Family	0 (0%)	11 (11.5%)	11 (6.4%)
Crepidotus Family	0 (0%)	1 (1.0%)	1 (0.6%)
Ear-Pick Family	0 (0%)	1 (1.0%)	1 (0.6%)
Jelly Discs Family	0 (0%)	1 (1.0%)	1 (0.6%)
Paxillus Family	0 (0%)	3 (3.1%)	3 (1.7%)
Saddle-Cup Family	0 (0%)	1 (1.0%)	1 (0.6%)
name			
Amethyst Deceiver	1 (1.3%)	0 (0%)	1 (0.6%)
Aniseed Funnel Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Bare-toothed Russula	1 (1.3%)	0 (0%)	1 (0.6%)
Bay Bolete	1 (1.3%)	0 (0%)	1 (0.6%)
Blackening Russula	1 (1.3%)	0 (0%)	1 (0.6%)
Blackish Purple Russula	1 (1.3%)	0 (0%)	1 (0.6%)
Bleeding Brown Mushroom	1 (1.3%)	0 (0%)	1 (0.6%)
Bonnet Bell Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Branched Oyster	1 (1.3%)	0 (0%)	1 (0.6%)
Mushroom			
Brown Birch Bolete	1 (1.3%)	0 (0%)	1 (0.6%)
Brown Stew Fungus	1 (1.3%)	0 (0%)	1 (0.6%)
Bulbous Honey Fungus	1 (1.3%)	0 (0%)	1 (0.6%)
Cep	1 (1.3%)	0 (0%)	1 (0.6%)
Changeable Melanoleuca	1 (1.3%)	0 (0%)	1 (0.6%)
Chanterelle	1 (1.3%)	0 (0%)	1 (0.6%)
Clouded Agaric	1 (1.3%)	0 (0%)	1 (0.6%)
Clustered Brown Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Coconut-scented Milk Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Common Crumble Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Common Funnel Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Common Morel	1 (1.3%)	0 (0%)	1 (0.6%)
Common Yellow Russula	1 (1.3%)	0 (0%)	1 (0.6%)
Crab-scented Russula	1 (1.3%)	0 (0%)	1 (0.6%)
Cultivated Mushroom	1 (1.3%)	0 (0%)	1 (0.6%)
Dryad' s Saddle	1 (1.3%)	0 (0%)	1 (0.6%)
Fairies' Bonnets	1 (1.3%)	0 (0%)	1 (0.6%)
Fairy Parasol	1 (1.3%)	0 (0%)	1 (0.6%)
Fairy Ring Champignon	1 (1.3%)	0 (0%)	1 (0.6%)
False Death Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Fawn Pluteus	1 (1.3%)	0 (0%)	1 (0.6%)
Field Blewit	1 (1.3%)	0 (0%)	1 (0.6%)
Field Mushroom	1 (1.3%)	0 (0%)	1 (0.6%)
Glistening Ink Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Greasy Tough Shank	1 (1.3%)	0 (0%)	1 (0.6%)
Grey Tricholoma	1 (1.3%)	0 (0%)	1 (0.6%)
Hedgehog Fungus	1 (1.3%)	0 (0%)	1 (0.6%)
Herald of Winter	1 (1.3%)	0 (0%)	1 (0.6%)
Honey Fungus	1 (1.3%)	0 (0%)	1 (0.6%)
Horn of Plenty	1 (1.3%)	0 (0%)	1 (0.6%)
Horse Mushroom	1 (1.3%)	0 (0%)	1 (0.6%)
Ivory Wax Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Larch Bolete	1 (1.3%)	0 (0%)	1 (0.6%)
Meadow Wax Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Milky Bell Cap	1 (1.3%)	0 (0%)	1 (0.6%)

	e	p	Overall
Orange Birch Bolete	1 (1.3%)	0 (0%)	1 (0.6%)
Oyster Mushroom	1 (1.3%)	0 (0%)	1 (0.6%)
Parasitic Bolete	1 (1.3%)	0 (0%)	1 (0.6%)
Parasol Mushroom	1 (1.3%)	0 (0%)	1 (0.6%)
Peppery Bolete	1 (1.3%)	0 (0%)	1 (0.6%)
Peppery Milk Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Porcelain Mushroom	1 (1.3%)	0 (0%)	1 (0.6%)
Red-cracked Bolete	1 (1.3%)	0 (0%)	1 (0.6%)
Saffron Milk Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Scaly Tricholoma	1 (1.3%)	0 (0%)	1 (0.6%)
Scarlet Hood	1 (1.3%)	0 (0%)	1 (0.6%)
Shaggy Ink Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Shaggy Parasol	1 (1.3%)	0 (0%)	1 (0.6%)
Shallow-pored Bolete	1 (1.3%)	0 (0%)	1 (0.6%)
Slippery Jack	1 (1.3%)	0 (0%)	1 (0.6%)
Small Bleeding Bell Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Spring Agaric	1 (1.3%)	0 (0%)	1 (0.6%)
St George' s Mushroom	1 (1.3%)	0 (0%)	1 (0.6%)
Tawny Grisette	1 (1.3%)	0 (0%)	1 (0.6%)
The Blusher	1 (1.3%)	0 (0%)	1 (0.6%)
The Charcoal Burner	1 (1.3%)	0 (0%)	1 (0.6%)
The Deceiver	1 (1.3%)	0 (0%)	1 (0.6%)
The Miller	1 (1.3%)	0 (0%)	1 (0.6%)
Tubed Chanterelle	1 (1.3%)	0 (0%)	1 (0.6%)
Two-toned Crumble Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Veined Pluteus	1 (1.3%)	0 (0%)	1 (0.6%)
Velvet Shank	1 (1.3%)	0 (0%)	1 (0.6%)
Wood Blewit	1 (1.3%)	0 (0%)	1 (0.6%)
Yellow-brown Tricholoma	1 (1.3%)	0 (0%)	1 (0.6%)
Yellow-cracked Bolete	1 (1.3%)	0 (0%)	1 (0.6%)
Yellow-gilled Russula	1 (1.3%)	0 (0%)	1 (0.6%)
Yellow-stemmed Bell Cap	1 (1.3%)	0 (0%)	1 (0.6%)
Yellow Swamp Russula	1 (1.3%)	0 (0%)	1 (0.6%)
Apricot Fungus	0 (0%)	1 (1.0%)	1 (0.6%)
Beechwood Sickener	0 (0%)	1 (1.0%)	1 (0.6%)
Birch Russula	0 (0%)	1 (1.0%)	1 (0.6%)
Bitter Bolete	0 (0%)	1 (1.0%)	1 (0.6%)
Blackening Wax Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Blood-red Cortinarius	0 (0%)	1 (1.0%)	1 (0.6%)
Blue Leptonia	0 (0%)	1 (1.0%)	1 (0.6%)
Brick Caps	0 (0%)	1 (1.0%)	1 (0.6%)
Brown Bell Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Brown Goblet	0 (0%)	1 (1.0%)	1 (0.6%)
Brown Roll-rim	0 (0%)	1 (1.0%)	1 (0.6%)
Charcoal Pholiota	0 (0%)	1 (1.0%)	1 (0.6%)
Club-footed Funnel Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Clustered Tough Shank	0 (0%)	1 (1.0%)	1 (0.6%)
Common Ink Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Common White Inocybe	0 (0%)	1 (1.0%)	1 (0.6%)
Dark-centred Hebeloma	0 (0%)	1 (1.0%)	1 (0.6%)
Death Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Destroying Angel	0 (0%)	1 (1.0%)	1 (0.6%)

	e	p	Overall
Dotted-stemmed Bolete	0 (0%)	1 (1.0%)	1 (0.6%)
Dung Roundhead	0 (0%)	1 (1.0%)	1 (0.6%)
Ear-pick Fungus	0 (0%)	1 (1.0%)	1 (0.6%)
Egg-shell Toadstool	0 (0%)	1 (1.0%)	1 (0.6%)
Egg Yolk Fungus	0 (0%)	1 (1.0%)	1 (0.6%)
Elfin' s Saddle	0 (0%)	1 (1.0%)	1 (0.6%)
False Chanterelle	0 (0%)	1 (1.0%)	1 (0.6%)
False Panther Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Fleecy Milk Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Fly Agaric	0 (0%)	1 (1.0%)	1 (0.6%)
Fragile Russula	0 (0%)	1 (1.0%)	1 (0.6%)
Fuzzy Polypore	0 (0%)	1 (1.0%)	1 (0.6%)
Geranium-scented Russula	0 (0%)	1 (1.0%)	1 (0.6%)
Grass-green Russula	0 (0%)	1 (1.0%)	1 (0.6%)
Hairy Stereum	0 (0%)	1 (1.0%)	1 (0.6%)
Hay Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Horse-hair Fungus	0 (0%)	1 (1.0%)	1 (0.6%)
Ivory Clitocybe	0 (0%)	1 (1.0%)	1 (0.6%)
Jelly Babies	0 (0%)	1 (1.0%)	1 (0.6%)
Lilac Bell Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Little Wheel Fungus	0 (0%)	1 (1.0%)	1 (0.6%)
Livid Entoloma	0 (0%)	1 (1.0%)	1 (0.6%)
Lurid Bolete	0 (0%)	1 (1.0%)	1 (0.6%)
Magic Mushroom	0 (0%)	1 (1.0%)	1 (0.6%)
Magpie Ink Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Moss Pixy Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Oak Milk Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Olive-brown Panellus	0 (0%)	1 (1.0%)	1 (0.6%)
Orange-red Wax Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Orange Bell Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Orange Moss Agaric	0 (0%)	1 (1.0%)	1 (0.6%)
Panther Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Parrot Wax Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Petticoat Fungus	0 (0%)	1 (1.0%)	1 (0.6%)
Plums and custard	0 (0%)	1 (1.0%)	1 (0.6%)
Poison Pie	0 (0%)	1 (1.0%)	1 (0.6%)
Purple Cortinarius	0 (0%)	1 (1.0%)	1 (0.6%)
Red-banded Cortinarius	0 (0%)	1 (1.0%)	1 (0.6%)
Red-staining Inocybe	0 (0%)	1 (1.0%)	1 (0.6%)
Rooting Shank	0 (0%)	1 (1.0%)	1 (0.6%)
Rufous Milk Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Russet Tough Shank	0 (0%)	1 (1.0%)	1 (0.6%)
Rusty Carpet Ink Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Rusty Wood Rotter	0 (0%)	1 (1.0%)	1 (0.6%)
Saffron Parasol	0 (0%)	1 (1.0%)	1 (0.6%)
Shaggy Pholiota	0 (0%)	1 (1.0%)	1 (0.6%)
Silky Nolanea	0 (0%)	1 (1.0%)	1 (0.6%)
Silver Leaf Fungus	0 (0%)	1 (1.0%)	1 (0.6%)
Slimy Milk Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Small Brown Milk Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Soap-scented Tricholoma	0 (0%)	1 (1.0%)	1 (0.6%)
Soft Slipper Toadstool	0 (0%)	1 (1.0%)	1 (0.6%)

	e	p	Overall
Spectacular Gymnopile	0 (0%)	1 (1.0%)	1 (0.6%)
Spotted Tough Shank	0 (0%)	1 (1.0%)	1 (0.6%)
Spruce Milk Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Stinking Parasol	0 (0%)	1 (1.0%)	1 (0.6%)
Stinking Russula	0 (0%)	1 (1.0%)	1 (0.6%)
Straw-coloured Inocybe	0 (0%)	1 (1.0%)	1 (0.6%)
Striated Nolanea	0 (0%)	1 (1.0%)	1 (0.6%)
Stump Bell Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Sulphur Tricholoma	0 (0%)	1 (1.0%)	1 (0.6%)
Sulphur Tuft	0 (0%)	1 (1.0%)	1 (0.6%)
Sweet Milk Cap	0 (0%)	1 (1.0%)	1 (0.6%)
The Sickener	0 (0%)	1 (1.0%)	1 (0.6%)
Tufted Bell Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Turban Fungus	0 (0%)	1 (1.0%)	1 (0.6%)
Ugly Milk Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Umbrella Navel Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Velvet Roll-rim	0 (0%)	1 (1.0%)	1 (0.6%)
Verdigris Toadstool	0 (0%)	1 (1.0%)	1 (0.6%)
Weeping Widow	0 (0%)	1 (1.0%)	1 (0.6%)
White Leptonia	0 (0%)	1 (1.0%)	1 (0.6%)
White Saddle	0 (0%)	1 (1.0%)	1 (0.6%)
Wood Woolly-foot	0 (0%)	1 (1.0%)	1 (0.6%)
Woolly Milk Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Yellow-staining Mushroom	0 (0%)	1 (1.0%)	1 (0.6%)
Yellow Wax cap	0 (0%)	1 (1.0%)	1 (0.6%)
min.cap.diameter			
Mean (SD)	4.75 (5.74)	3.47 (2.27)	4.04 (4.22)
Median [Min, Max]	4.00 [0.500, 50.0]	3.00 [0.400, 10.0]	3.00 [0.400, 50.0]
max.cap.diameter			
Mean (SD)	10.3 (5.76)	8.29 (5.58)	9.20 (5.73)
Median [Min, Max]	10.0 [1.50, 30.0]	7.00 [1.00, 30.0]	8.00 [1.00, 30.0]
Missing	1 (1.3%)	0 (0%)	1 (0.6%)
cap.shape			
b	2 (2.6%)	8 (8.3%)	10 (5.8%)
b, f	2 (2.6%)	3 (3.1%)	5 (2.9%)
c	1 (1.3%)	2 (2.1%)	3 (1.7%)
c, x	1 (1.3%)	0 (0%)	1 (0.6%)
c, x, f	1 (1.3%)	0 (0%)	1 (0.6%)
f	4 (5.2%)	4 (4.2%)	8 (4.6%)
f, s	3 (3.9%)	5 (5.2%)	8 (4.6%)
f, x	1 (1.3%)	1 (1.0%)	2 (1.2%)
o	1 (1.3%)	7 (7.3%)	8 (4.6%)
p, b	1 (1.3%)	2 (2.1%)	3 (1.7%)
p, c, o	1 (1.3%)	0 (0%)	1 (0.6%)
p, f	2 (2.6%)	0 (0%)	2 (1.2%)
p, x	3 (3.9%)	1 (1.0%)	4 (2.3%)
p, x, f	2 (2.6%)	0 (0%)	2 (1.2%)
s	4 (5.2%)	5 (5.2%)	9 (5.2%)
s, o	2 (2.6%)	0 (0%)	2 (1.2%)
x	23 (29.9%)	25 (26.0%)	48 (27.7%)
x, f	14 (18.2%)	15 (15.6%)	29 (16.8%)
x, f, s	7 (9.1%)	6 (6.3%)	13 (7.5%)

	e	p	Overall
x, p	1 (1.3%)	1 (1.0%)	2 (1.2%)
x, s	1 (1.3%)	2 (2.1%)	3 (1.7%)
b, f, s	0 (0%)	1 (1.0%)	1 (0.6%)
b, x	0 (0%)	3 (3.1%)	3 (1.7%)
b, x, f	0 (0%)	1 (1.0%)	1 (0.6%)
c, f	0 (0%)	2 (2.1%)	2 (1.2%)
p	0 (0%)	1 (1.0%)	1 (0.6%)
x, o	0 (0%)	1 (1.0%)	1 (0.6%)
Cap.surface			
	19 (24.7%)	21 (21.9%)	40 (23.1%)
d	4 (5.2%)	5 (5.2%)	9 (5.2%)
d, k	1 (1.3%)	1 (1.0%)	2 (1.2%)
d, s	1 (1.3%)	0 (0%)	1 (0.6%)
e	3 (3.9%)	2 (2.1%)	5 (2.9%)
e, y	1 (1.3%)	0 (0%)	1 (0.6%)
g	5 (6.5%)	7 (7.3%)	12 (6.9%)
g, s, h, t	1 (1.3%)	0 (0%)	1 (0.6%)
g, s, t	1 (1.3%)	0 (0%)	1 (0.6%)
h	3 (3.9%)	2 (2.1%)	5 (2.9%)
h, s, d	1 (1.3%)	0 (0%)	1 (0.6%)
h, t	6 (7.8%)	4 (4.2%)	10 (5.8%)
i, y	2 (2.6%)	0 (0%)	2 (1.2%)
l	2 (2.6%)	2 (2.1%)	4 (2.3%)
s	8 (10.4%)	5 (5.2%)	13 (7.5%)
s, d	1 (1.3%)	0 (0%)	1 (0.6%)
s, t	2 (2.6%)	2 (2.1%)	4 (2.3%)
s, y	1 (1.3%)	2 (2.1%)	3 (1.7%)
t	2 (2.6%)	10 (10.4%)	12 (6.9%)
t, h	1 (1.3%)	1 (1.0%)	2 (1.2%)
t, h, s	1 (1.3%)	0 (0%)	1 (0.6%)
w	2 (2.6%)	3 (3.1%)	5 (2.9%)
w, t	1 (1.3%)	0 (0%)	1 (0.6%)
y	7 (9.1%)	7 (7.3%)	14 (8.1%)
y, s	1 (1.3%)	0 (0%)	1 (0.6%)
d, e, y, i	0 (0%)	1 (1.0%)	1 (0.6%)
d, k, s	0 (0%)	1 (1.0%)	1 (0.6%)
e, k, s, h	0 (0%)	1 (1.0%)	1 (0.6%)
e, t, k	0 (0%)	1 (1.0%)	1 (0.6%)
g, h	0 (0%)	1 (1.0%)	1 (0.6%)
g, s, d	0 (0%)	1 (1.0%)	1 (0.6%)
h, s, t	0 (0%)	1 (1.0%)	1 (0.6%)
h, t, w	0 (0%)	1 (1.0%)	1 (0.6%)
h, t, y	0 (0%)	1 (1.0%)	1 (0.6%)
i	0 (0%)	4 (4.2%)	4 (2.3%)
i, e	0 (0%)	1 (1.0%)	1 (0.6%)
k	0 (0%)	4 (4.2%)	4 (2.3%)
k, e	0 (0%)	1 (1.0%)	1 (0.6%)
s, h	0 (0%)	1 (1.0%)	1 (0.6%)
s, i	0 (0%)	1 (1.0%)	1 (0.6%)
t, w, d	0 (0%)	1 (1.0%)	1 (0.6%)
cap.color			
b	1 (1.3%)	0 (0%)	1 (0.6%)

	e	p	Overall
b, u	1 (1.3%)	0 (0%)	1 (0.6%)
e, n, y	2 (2.6%)	0 (0%)	2 (1.2%)
g, k	1 (1.3%)	1 (1.0%)	2 (1.2%)
g, n	6 (7.8%)	4 (4.2%)	10 (5.8%)
g, u, n, p	1 (1.3%)	0 (0%)	1 (0.6%)
k, n, w	1 (1.3%)	0 (0%)	1 (0.6%)
l, g, b, w	1 (1.3%)	0 (0%)	1 (0.6%)
l, r, w	1 (1.3%)	0 (0%)	1 (0.6%)
l, u, g, n	1 (1.3%)	0 (0%)	1 (0.6%)
l, y	1 (1.3%)	0 (0%)	1 (0.6%)
n	22 (28.6%)	16 (16.7%)	38 (22.0%)
n, w	1 (1.3%)	0 (0%)	1 (0.6%)
n, b	1 (1.3%)	1 (1.0%)	2 (1.2%)
n, e	1 (1.3%)	4 (4.2%)	5 (2.9%)
n, g	3 (3.9%)	0 (0%)	3 (1.7%)
n, o	2 (2.6%)	2 (2.1%)	4 (2.3%)
n, o, e	1 (1.3%)	0 (0%)	1 (0.6%)
n, p, e	1 (1.3%)	1 (1.0%)	2 (1.2%)
n, r, u, y	1 (1.3%)	0 (0%)	1 (0.6%)
n, w	1 (1.3%)	3 (3.1%)	4 (2.3%)
n, y	3 (3.9%)	6 (6.3%)	9 (5.2%)
n, y, e	1 (1.3%)	0 (0%)	1 (0.6%)
n, y, w	1 (1.3%)	0 (0%)	1 (0.6%)
o, b	1 (1.3%)	0 (0%)	1 (0.6%)
o, n	1 (1.3%)	0 (0%)	1 (0.6%)
o, p, e	1 (1.3%)	0 (0%)	1 (0.6%)
u, k	1 (1.3%)	0 (0%)	1 (0.6%)
w	6 (7.8%)	6 (6.3%)	12 (6.9%)
w, g	1 (1.3%)	1 (1.0%)	2 (1.2%)
w, n	2 (2.6%)	2 (2.1%)	4 (2.3%)
w, p, o	1 (1.3%)	0 (0%)	1 (0.6%)
w, y	1 (1.3%)	1 (1.0%)	2 (1.2%)
y	6 (7.8%)	4 (4.2%)	10 (5.8%)
b, p, e, y	0 (0%)	1 (1.0%)	1 (0.6%)
e	0 (0%)	3 (3.1%)	3 (1.7%)
e, n	0 (0%)	2 (2.1%)	2 (1.2%)
e, n, p, w	0 (0%)	1 (1.0%)	1 (0.6%)
e, o	0 (0%)	1 (1.0%)	1 (0.6%)
e, o, k	0 (0%)	1 (1.0%)	1 (0.6%)
e, p, w	0 (0%)	1 (1.0%)	1 (0.6%)
e, u, y	0 (0%)	1 (1.0%)	1 (0.6%)
g	0 (0%)	1 (1.0%)	1 (0.6%)
g, n, k	0 (0%)	1 (1.0%)	1 (0.6%)
g, r, k, n	0 (0%)	1 (1.0%)	1 (0.6%)
g, r, n	0 (0%)	2 (2.1%)	2 (1.2%)
g, u, n	0 (0%)	1 (1.0%)	1 (0.6%)
l, k	0 (0%)	1 (1.0%)	1 (0.6%)
n, e, y	0 (0%)	1 (1.0%)	1 (0.6%)
n, o, y, w	0 (0%)	1 (1.0%)	1 (0.6%)
o	0 (0%)	2 (2.1%)	2 (1.2%)
o, e, n, k	0 (0%)	1 (1.0%)	1 (0.6%)
o, y	0 (0%)	3 (3.1%)	3 (1.7%)

	e	p	Overall
o, y, r	0 (0%)	1 (1.0%)	1 (0.6%)
p	0 (0%)	2 (2.1%)	2 (1.2%)
r	0 (0%)	1 (1.0%)	1 (0.6%)
r, l	0 (0%)	1 (1.0%)	1 (0.6%)
r, n	0 (0%)	1 (1.0%)	1 (0.6%)
r, p, y	0 (0%)	1 (1.0%)	1 (0.6%)
r, y	0 (0%)	1 (1.0%)	1 (0.6%)
u	0 (0%)	2 (2.1%)	2 (1.2%)
w, u	0 (0%)	1 (1.0%)	1 (0.6%)
w, y, g, n	0 (0%)	1 (1.0%)	1 (0.6%)
y, n	0 (0%)	3 (3.1%)	3 (1.7%)
y, o	0 (0%)	1 (1.0%)	1 (0.6%)
y, o, g, n, r	0 (0%)	1 (1.0%)	1 (0.6%)
y, o, r, n	0 (0%)	1 (1.0%)	1 (0.6%)
does.bruise.or.bleed			
f	63 (81.8%)	80 (83.3%)	143 (82.7%)
t	14 (18.2%)	16 (16.7%)	30 (17.3%)
gill.attachment			
	10 (13.0%)	18 (18.8%)	28 (16.2%)
a	11 (14.3%)	21 (21.9%)	32 (18.5%)
a, d	5 (6.5%)	3 (3.1%)	8 (4.6%)
d	9 (11.7%)	16 (16.7%)	25 (14.5%)
e	10 (13.0%)	6 (6.3%)	16 (9.2%)
f	4 (5.2%)	6 (6.3%)	10 (5.8%)
p	12 (15.6%)	5 (5.2%)	17 (9.8%)
s	7 (9.1%)	9 (9.4%)	16 (9.2%)
x	9 (11.7%)	12 (12.5%)	21 (12.1%)
gill.spacing			
	31 (40.3%)	40 (41.7%)	71 (41.0%)
c	29 (37.7%)	41 (42.7%)	70 (40.5%)
d	13 (16.9%)	9 (9.4%)	22 (12.7%)
f	4 (5.2%)	6 (6.3%)	10 (5.8%)
gill.color			
b	1 (1.3%)	0 (0%)	1 (0.6%)
b, u	1 (1.3%)	0 (0%)	1 (0.6%)
f	4 (5.2%)	6 (6.3%)	10 (5.8%)
g	3 (3.9%)	1 (1.0%)	4 (2.3%)
g, k	1 (1.3%)	1 (1.0%)	2 (1.2%)
g, n	1 (1.3%)	2 (2.1%)	3 (1.7%)
g, p	1 (1.3%)	0 (0%)	1 (0.6%)
g, w	2 (2.6%)	0 (0%)	2 (1.2%)
g, w, y	1 (1.3%)	0 (0%)	1 (0.6%)
k, n	2 (2.6%)	4 (4.2%)	6 (3.5%)
k, p, w	1 (1.3%)	0 (0%)	1 (0.6%)
n	3 (3.9%)	8 (8.3%)	11 (6.4%)
n, y	1 (1.3%)	1 (1.0%)	2 (1.2%)
o	2 (2.6%)	2 (2.1%)	4 (2.3%)
o, b	1 (1.3%)	0 (0%)	1 (0.6%)
o, e	1 (1.3%)	1 (1.0%)	2 (1.2%)
o, y	1 (1.3%)	4 (4.2%)	5 (2.9%)
p	3 (3.9%)	5 (5.2%)	8 (4.6%)
p, n	1 (1.3%)	0 (0%)	1 (0.6%)

	e	p	Overall
p, n, k	1 (1.3%)	0 (0%)	1 (0.6%)
p, w	3 (3.9%)	2 (2.1%)	5 (2.9%)
r	1 (1.3%)	0 (0%)	1 (0.6%)
u, w	1 (1.3%)	0 (0%)	1 (0.6%)
w	21 (27.3%)	15 (15.6%)	36 (20.8%)
w, n	3 (3.9%)	2 (2.1%)	5 (2.9%)
w, p	1 (1.3%)	2 (2.1%)	3 (1.7%)
w, p, y	1 (1.3%)	0 (0%)	1 (0.6%)
w, u, g, n	1 (1.3%)	0 (0%)	1 (0.6%)
w, y	3 (3.9%)	2 (2.1%)	5 (2.9%)
y	6 (7.8%)	7 (7.3%)	13 (7.5%)
y, e, n	1 (1.3%)	0 (0%)	1 (0.6%)
y, k	1 (1.3%)	0 (0%)	1 (0.6%)
y, n	1 (1.3%)	4 (4.2%)	5 (2.9%)
y, r	1 (1.3%)	0 (0%)	1 (0.6%)
b, p, w	0 (0%)	1 (1.0%)	1 (0.6%)
e	0 (0%)	1 (1.0%)	1 (0.6%)
g, n, u	0 (0%)	1 (1.0%)	1 (0.6%)
g, r, w	0 (0%)	1 (1.0%)	1 (0.6%)
g, u	0 (0%)	1 (1.0%)	1 (0.6%)
k, p	0 (0%)	1 (1.0%)	1 (0.6%)
n, e, y	0 (0%)	1 (1.0%)	1 (0.6%)
n, p	0 (0%)	2 (2.1%)	2 (1.2%)
n, r	0 (0%)	1 (1.0%)	1 (0.6%)
n, u	0 (0%)	1 (1.0%)	1 (0.6%)
n, w	0 (0%)	2 (2.1%)	2 (1.2%)
p, y	0 (0%)	1 (1.0%)	1 (0.6%)
p, y, r	0 (0%)	1 (1.0%)	1 (0.6%)
r, y	0 (0%)	1 (1.0%)	1 (0.6%)
w, b, n	0 (0%)	1 (1.0%)	1 (0.6%)
w, g	0 (0%)	1 (1.0%)	1 (0.6%)
w, g, k	0 (0%)	1 (1.0%)	1 (0.6%)
w, g, p, n	0 (0%)	1 (1.0%)	1 (0.6%)
w, g, u	0 (0%)	1 (1.0%)	1 (0.6%)
w, r	0 (0%)	1 (1.0%)	1 (0.6%)
w, y, g, n	0 (0%)	1 (1.0%)	1 (0.6%)
y, g, k	0 (0%)	1 (1.0%)	1 (0.6%)
y, o, e	0 (0%)	1 (1.0%)	1 (0.6%)
y, r, k	0 (0%)	1 (1.0%)	1 (0.6%)
y, w	0 (0%)	1 (1.0%)	1 (0.6%)
min.stem.height			
Mean (SD)	4.52 (2.20)	4.14 (2.31)	4.31 (2.26)
Median [Min, Max]	4.00 [2.00, 15.0]	4.00 [0, 15.0]	4.00 [0, 15.0]
max.stem.height			
Mean (SD)	9.58 (5.03)	8.30 (4.03)	8.87 (4.53)
Median [Min, Max]	8.00 [3.00, 35.0]	8.00 [0, 20.0]	8.00 [0, 35.0]
min.stem.width			
Mean (SD)	10.1 (6.84)	7.26 (5.71)	8.52 (6.38)
Median [Min, Max]	10.0 [1.00, 40.0]	5.00 [0, 20.0]	8.00 [0, 40.0]
Missing	1 (1.3%)	0 (0%)	1 (0.6%)
max.stem.width			
Mean (SD)	18.7 (15.8)	13.5 (11.8)	15.8 (13.9)

	e	p	Overall
Median [Min, Max]	15.0 [1.00, 100]	10.0 [0, 60.0]	12.0 [0, 100]
Missing	1 (1.3%)	0 (0%)	1 (0.6%)
stem.root	67 (87.0%)	79 (82.3%)	146 (84.4%)
b	6 (7.8%)	3 (3.1%)	9 (5.2%)
s	4 (5.2%)	5 (5.2%)	9 (5.2%)
c	0 (0%)	2 (2.1%)	2 (1.2%)
f	0 (0%)	3 (3.1%)	3 (1.7%)
r	0 (0%)	4 (4.2%)	4 (2.3%)
stem.surface	53 (68.8%)	55 (57.3%)	108 (62.4%)
i	4 (5.2%)	7 (7.3%)	11 (6.4%)
i, t	1 (1.3%)	0 (0%)	1 (0.6%)
k	1 (1.3%)	3 (3.1%)	4 (2.3%)
k, s	1 (1.3%)	0 (0%)	1 (0.6%)
s	9 (11.7%)	6 (6.3%)	15 (8.7%)
t	3 (3.9%)	4 (4.2%)	7 (4.0%)
y	4 (5.2%)	9 (9.4%)	13 (7.5%)
y, s	1 (1.3%)	0 (0%)	1 (0.6%)
f	0 (0%)	3 (3.1%)	3 (1.7%)
g	0 (0%)	5 (5.2%)	5 (2.9%)
h	0 (0%)	1 (1.0%)	1 (0.6%)
i, s	0 (0%)	1 (1.0%)	1 (0.6%)
i, y	0 (0%)	1 (1.0%)	1 (0.6%)
s, h	0 (0%)	1 (1.0%)	1 (0.6%)
stem.color			
b, u	1 (1.3%)	0 (0%)	1 (0.6%)
e, n	1 (1.3%)	2 (2.1%)	3 (1.7%)
e, y	1 (1.3%)	0 (0%)	1 (0.6%)
g	2 (2.6%)	0 (0%)	2 (1.2%)
g, w	1 (1.3%)	0 (0%)	1 (0.6%)
g, n	1 (1.3%)	3 (3.1%)	4 (2.3%)
g, w	2 (2.6%)	0 (0%)	2 (1.2%)
k, n	1 (1.3%)	1 (1.0%)	2 (1.2%)
l, r, w	1 (1.3%)	0 (0%)	1 (0.6%)
n	15 (19.5%)	20 (20.8%)	35 (20.2%)
n, g	1 (1.3%)	1 (1.0%)	2 (1.2%)
n, o	1 (1.3%)	1 (1.0%)	2 (1.2%)
n, p, w	1 (1.3%)	0 (0%)	1 (0.6%)
n, w	2 (2.6%)	1 (1.0%)	3 (1.7%)
n, y	1 (1.3%)	1 (1.0%)	2 (1.2%)
o, e	1 (1.3%)	0 (0%)	1 (0.6%)
o, n	1 (1.3%)	0 (0%)	1 (0.6%)
o, y	1 (1.3%)	4 (4.2%)	5 (2.9%)
u	1 (1.3%)	1 (1.0%)	2 (1.2%)
w	32 (41.6%)	25 (26.0%)	57 (32.9%)
w, n	2 (2.6%)	1 (1.0%)	3 (1.7%)
w, o	1 (1.3%)	0 (0%)	1 (0.6%)
w, y	1 (1.3%)	2 (2.1%)	3 (1.7%)
y	5 (6.5%)	8 (8.3%)	13 (7.5%)
e	0 (0%)	1 (1.0%)	1 (0.6%)
e, u, y	0 (0%)	1 (1.0%)	1 (0.6%)

	e	p	Overall
f	0 (0%)	3 (3.1%)	3 (1.7%)
g, r, n	0 (0%)	2 (2.1%)	2 (1.2%)
g, u, n	0 (0%)	1 (1.0%)	1 (0.6%)
k	0 (0%)	1 (1.0%)	1 (0.6%)
n, e	0 (0%)	2 (2.1%)	2 (1.2%)
n, p	0 (0%)	1 (1.0%)	1 (0.6%)
o	0 (0%)	1 (1.0%)	1 (0.6%)
p	0 (0%)	2 (2.1%)	2 (1.2%)
r, y	0 (0%)	1 (1.0%)	1 (0.6%)
u, e	0 (0%)	1 (1.0%)	1 (0.6%)
w, l, n	0 (0%)	1 (1.0%)	1 (0.6%)
w, u	0 (0%)	1 (1.0%)	1 (0.6%)
y, e, n	0 (0%)	1 (1.0%)	1 (0.6%)
y, n	0 (0%)	4 (4.2%)	4 (2.3%)
y, o, k	0 (0%)	1 (1.0%)	1 (0.6%)
veil.type			
	74 (96.1%)	90 (93.8%)	164 (94.8%)
u	3 (3.9%)	6 (6.3%)	9 (5.2%)
veil.color			
	68 (88.3%)	84 (87.5%)	152 (87.9%)
w	7 (9.1%)	8 (8.3%)	15 (8.7%)
y	1 (1.3%)	0 (0%)	1 (0.6%)
y, w	1 (1.3%)	0 (0%)	1 (0.6%)
e, n	0 (0%)	1 (1.0%)	1 (0.6%)
k	0 (0%)	1 (1.0%)	1 (0.6%)
n	0 (0%)	1 (1.0%)	1 (0.6%)
u	0 (0%)	1 (1.0%)	1 (0.6%)
has.ring			
f	60 (77.9%)	70 (72.9%)	130 (75.1%)
t	17 (22.1%)	26 (27.1%)	43 (24.9%)
ring.type			
	4 (5.2%)	3 (3.1%)	7 (4.0%)
e	3 (3.9%)	3 (3.1%)	6 (3.5%)
f	61 (79.2%)	76 (79.2%)	137 (79.2%)
g	2 (2.6%)	0 (0%)	2 (1.2%)
l	1 (1.3%)	1 (1.0%)	2 (1.2%)
l, p	1 (1.3%)	0 (0%)	1 (0.6%)
l, r	2 (2.6%)	0 (0%)	2 (1.2%)
m	1 (1.3%)	0 (0%)	1 (0.6%)
p	1 (1.3%)	1 (1.0%)	2 (1.2%)
r	1 (1.3%)	2 (2.1%)	3 (1.7%)
e, g	0 (0%)	1 (1.0%)	1 (0.6%)
g, p	0 (0%)	2 (2.1%)	2 (1.2%)
l, e	0 (0%)	1 (1.0%)	1 (0.6%)
z	0 (0%)	6 (6.3%)	6 (3.5%)
Spore.print.color			
	72 (93.5%)	83 (86.5%)	155 (89.6%)
g	1 (1.3%)	0 (0%)	1 (0.6%)
k	1 (1.3%)	4 (4.2%)	5 (2.9%)
p	1 (1.3%)	2 (2.1%)	3 (1.7%)
w	2 (2.6%)	1 (1.0%)	3 (1.7%)
k, r	0 (0%)	1 (1.0%)	1 (0.6%)

	e	p	Overall
k, u	0 (0%)	1 (1.0%)	1 (0.6%)
n	0 (0%)	3 (3.1%)	3 (1.7%)
p, w	0 (0%)	1 (1.0%)	1 (0.6%)
habitat			
d	47 (61.0%)	57 (59.4%)	104 (60.1%)
d, h	1 (1.3%)	3 (3.1%)	4 (2.3%)
g	1 (1.3%)	10 (10.4%)	11 (6.4%)
g, d	6 (7.8%)	4 (4.2%)	10 (5.8%)
g, d, h	1 (1.3%)	0 (0%)	1 (0.6%)
g, h, d	1 (1.3%)	2 (2.1%)	3 (1.7%)
g, l, m, d	1 (1.3%)	0 (0%)	1 (0.6%)
g, m	3 (3.9%)	2 (2.1%)	5 (2.9%)
g, m, d	1 (1.3%)	4 (4.2%)	5 (2.9%)
g, u, d	1 (1.3%)	0 (0%)	1 (0.6%)
l	1 (1.3%)	0 (0%)	1 (0.6%)
l, d	7 (9.1%)	6 (6.3%)	13 (7.5%)
l, d, h	1 (1.3%)	0 (0%)	1 (0.6%)
l, h	1 (1.3%)	0 (0%)	1 (0.6%)
m	1 (1.3%)	1 (1.0%)	2 (1.2%)
m, d	2 (2.6%)	1 (1.0%)	3 (1.7%)
w	1 (1.3%)	0 (0%)	1 (0.6%)
g, l, d	0 (0%)	1 (1.0%)	1 (0.6%)
h, d	0 (0%)	2 (2.1%)	2 (1.2%)
m, h	0 (0%)	1 (1.0%)	1 (0.6%)
p, d	0 (0%)	2 (2.1%)	2 (1.2%)
season			
a	5 (6.5%)	11 (11.5%)	16 (9.2%)
a, w	9 (11.7%)	6 (6.3%)	15 (8.7%)
s	1 (1.3%)	0 (0%)	1 (0.6%)
s, a, w	1 (1.3%)	0 (0%)	1 (0.6%)
s, u	2 (2.6%)	1 (1.0%)	3 (1.7%)
s, u, a	1 (1.3%)	4 (4.2%)	5 (2.9%)
s, u, a, w	7 (9.1%)	6 (6.3%)	13 (7.5%)
u, a	43 (55.8%)	63 (65.6%)	106 (61.3%)
u, a, w	8 (10.4%)	4 (4.2%)	12 (6.9%)
u	0 (0%)	1 (1.0%)	1 (0.6%)