

Homework2

Summary report for the mushroom dataset

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目錄

一、讀取資料	1
二、data information	4

一、讀取資料

```
# R Interface to Python
library(reticulate)
library(dplyr)
library(Hmisc)
#latex(describe(mtcars), file="")

file_path <- "/Users/leeyusir/Desktop/    /Homework2/primary_data.csv"

lines <- readLines(file_path)

columns <- unlist(strsplit(lines[1], ";"))

# Process data within `[ ]` to ensure they're treated as single units
process_line <- function(line) {
# Use regex to preserve content within `[ ]` to avoid splitting by `;` line <- gsub("\\[([^\]]+)]\\]", " "
# Split by `;`
  split_line <- unlist(strsplit(line, ";"))
  split_line[split_line == ""] <- NA
  return(split_line)
}

# Process all data
data_list <- lapply(lines[-1], process_line)

# Convert to DataFrame
df <- as.data.frame(do.call(rbind, data_list), stringsAsFactors = FALSE)

# Set column names
colnames(df) <- columns

#df<-read.csv("df.csv")
```

```
latex(describe(df), describe = "Descriptive Statistics",
      file = '', caption.placement = "top")
```

23 Variables

df173

Observations

family

n

missing

distinct

173

0

23

lowest : Amanita Family

Bolbitius Family

Bolete Family

Bracket Fungi

Chanterelle Family

highest: Russula Family

Saddle-Cup Family

Stropharia Family

Tricholoma Family

Wax Gill Family

name

n

missing

distinct

173

0

173

lowest : Amethyst Deceiver

Aniseed Funnel Cap

Apricot Fungus

Bare-toothed Russula

Bay Bolete

highest: Yellow-brown Tricholoma

Yellow-cracked Bolete

Yellow-gilled Russula

Yellow-staining Mushroom

Yellow-stemmed Bolete

class

n

missing

distinct

173

0

2

Value

e

p

Frequency

77

96

Proportion

0.445

0.555

cap-diameter

n

missing

distinct

173

0

51

lowest : [0.4, 1]

[0.5, 1.5]

[0.5, 1]

[0.7, 1.3]

[1, 1.5]

highest: [8, 14]

[8, 15]

[8, 20]

[8, 25]

[8, 30]

cap-shape

n

missing

distinct

173

0

27

lowest : [b, f, s]

[b, f]

[b, x, f]

[b, x]

[b]

highest: [x, f]

[x, o]

[x, p]

[x, s]

[x]

Cap-surface

n

missing

distinct

133

40

40

lowest : [d, e, y, i]

[d, k, s]

[d, k]

[d, s]

[d]

highest: [t]

[w, t]

[w]

[y, s]

[y]

cap-color

n

missing

distinct

173

0

67

lowest : [b, p, e, y]

[b, u]

[b]

[e, n, p, w]

[e, n, y]

highest: [y, n]

[y, o, g, n, r]

[y, o, r, n]

[y, o]

[y]

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, d]

[a]

[d]

[e]

[f]

[p]

[s]

[x]

Frequency

8

32

25

16

10

17

16

21

Proportion

0.055

0.221

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, p, w]	[b, u]	[b]	[e]	[f]
highest:	[y, o, e]	[y, r, k]	[y, r]	[y, w]	[y]

stem-height

n	missing	distinct
173	0	46

lowest :	[0]	[1, 2]	[1, 3]	[10, 12]	[10, 15]	highest:	[8, 12]	[8, 15]	[8, 20]	[8, 25]	[8, 30]
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stem-width

n	missing	distinct
173	0	48

lowest :	[0.5, 1]	[0]	[1, 2]	[1, 3]	[1]	highest:	[7, 15]	[8, 12]	[8, 15]	[8, 18]	[8, 20]
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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, s]	[i, t]	[i, y]	[i]	[k, s]	[k]	[s, h]	[s]	[t]
Frequency	3	5	1	1	1	1	11	1	4	1	15	7
Proportion	0.046	0.077	0.015	0.015	0.015	0.015	0.169	0.015	0.062	0.015	0.231	0.108

Value	[y, s]	[y]
Frequency	1	13
Proportion	0.015	0.200

stem-color

n	missing	distinct
173	0	41

lowest :	[b, u]	[e, n]	[e, u, y]	[e, y]	[e]
highest:	[w]	[y, e, n]	[y, n]	[y, o, k]	[y]

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, w]	[y]
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, g]	[e]	[f]	[g, p]	[g]	[l, e]	[l, p]	[l, r]	[l]	[m]	[p]	[r]	
Frequency	1	6	137	2	2	1	1	2	2	1	2	3	
Proportion	0.006	0.036	0.825	0.012	0.012	0.006	0.006	0.012	0.012	0.006	0.012	0.018	
Value	[z]												
Frequency	6												
Proportion	0.036												

Spore-print-color

n	missing	distinct								
18	155	8								
Value	[g]	[k, r]	[k, u]	[k]	[n]	[p, w]	[p]	[w]		
Frequency	1	1	1	5	3	1	3	3		
Proportion	0.056	0.056	0.056	0.278	0.167	0.056	0.167	0.167		

habitat

n	missing	distinct					
173	0	21					
lowest :	[d, h]	[d]	[g, d, h]	[g, d]	[g, h, d]		
highest:	[m, d]	[m, h]	[m]	[p, d]	[w]		

season

n	missing	distinct					
173	0	10					
Value	[a, w]	[a]	[s, a, w]	[s, u, a, w]	[s, u, a]	[s, u]	
Frequency	15	16	1	13	5	3	
Proportion	0.087	0.092	0.006	0.075	0.029	0.017	
Value	[s]	[u, a, w]	[u, a]	[u]			
Frequency	1	12	106	1			
Proportion	0.006	0.069	0.613	0.006			

二、data information

```
# R Interface to Python

#latex(describe(mtcars), file="")

# &
library(table1)

table1(~. | class, data = df)
```

	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%)

	e	p	Overall
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%)
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 Mushroom	1 (1.3%)	0 (0%)	1 (0.6%)
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%)

	e	p	Overall
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%)
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 Swamp Russula	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%)
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%)

	e	p	Overall
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%)
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 Yolk Fungus	0 (0%)	1 (1.0%)	1 (0.6%)
Egg-shell Toadstool	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 Bell Cap	0 (0%)	1 (1.0%)	1 (0.6%)
Orange Moss Agaric	0 (0%)	1 (1.0%)	1 (0.6%)
Orange-red Wax Cap	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%)

	e	p	Overall
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%)
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 Wax cap	0 (0%)	1 (1.0%)	1 (0.6%)
Yellow-staining Mushroom	0 (0%)	1 (1.0%)	1 (0.6%)
cap-diameter			
[0.5, 1.5]	2 (2.6%)	1 (1.0%)	3 (1.7%)
[1, 2]	3 (3.9%)	4 (4.2%)	7 (4.0%)
[1, 4]	2 (2.6%)	2 (2.1%)	4 (2.3%)
[10, 25]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[12, 18]	1 (1.3%)	0 (0%)	1 (0.6%)
[12, 25]	1 (1.3%)	0 (0%)	1 (0.6%)
[2, 10]	1 (1.3%)	0 (0%)	1 (0.6%)
[2, 4]	1 (1.3%)	7 (7.3%)	8 (4.6%)
[2, 5]	7 (9.1%)	9 (9.4%)	16 (9.2%)
[2, 6]	2 (2.6%)	8 (8.3%)	10 (5.8%)
[2, 7]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[2, 8]	1 (1.3%)	0 (0%)	1 (0.6%)
[3, 10]	4 (5.2%)	1 (1.0%)	5 (2.9%)
[3, 5]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[3, 6]	4 (5.2%)	2 (2.1%)	6 (3.5%)
[3, 7]	1 (1.3%)	3 (3.1%)	4 (2.3%)
[3, 8]	2 (2.6%)	4 (4.2%)	6 (3.5%)
[4, 10]	4 (5.2%)	4 (4.2%)	8 (4.6%)
[4, 12]	3 (3.9%)	2 (2.1%)	5 (2.9%)
[4, 8]	5 (6.5%)	4 (4.2%)	9 (5.2%)
[4, 9]	2 (2.6%)	1 (1.0%)	3 (1.7%)

	e	p	Overall
[5, 10]	4 (5.2%)	8 (8.3%)	12 (6.9%)
[5, 12]	3 (3.9%)	3 (3.1%)	6 (3.5%)
[5, 15]	7 (9.1%)	1 (1.0%)	8 (4.6%)
[5, 18]	1 (1.3%)	0 (0%)	1 (0.6%)
[5, 20]	1 (1.3%)	0 (0%)	1 (0.6%)
[50]	1 (1.3%)	0 (0%)	1 (0.6%)
[6, 10]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[6, 12]	2 (2.6%)	3 (3.1%)	5 (2.9%)
[6, 14]	1 (1.3%)	0 (0%)	1 (0.6%)
[7, 15]	2 (2.6%)	1 (1.0%)	3 (1.7%)
[8, 12]	1 (1.3%)	0 (0%)	1 (0.6%)
[8, 15]	1 (1.3%)	0 (0%)	1 (0.6%)
[8, 20]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[8, 25]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[8, 30]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[0.4, 1]	0 (0%)	2 (2.1%)	2 (1.2%)
[0.5, 1]	0 (0%)	1 (1.0%)	1 (0.6%)
[0.7, 1.3]	0 (0%)	1 (1.0%)	1 (0.6%)
[1, 1.5]	0 (0%)	1 (1.0%)	1 (0.6%)
[1, 3]	0 (0%)	5 (5.2%)	5 (2.9%)
[10, 15]	0 (0%)	1 (1.0%)	1 (0.6%)
[10, 20]	0 (0%)	1 (1.0%)	1 (0.6%)
[2, 3]	0 (0%)	1 (1.0%)	1 (0.6%)
[3, 12]	0 (0%)	1 (1.0%)	1 (0.6%)
[4, 7]	0 (0%)	1 (1.0%)	1 (0.6%)
[5, 14]	0 (0%)	1 (1.0%)	1 (0.6%)
[6, 15]	0 (0%)	2 (2.1%)	2 (1.2%)
[6, 18]	0 (0%)	1 (1.0%)	1 (0.6%)
[7, 20]	0 (0%)	1 (1.0%)	1 (0.6%)
[8, 14]	0 (0%)	1 (1.0%)	1 (0.6%)
cap-shape			
[b, f]	2 (2.6%)	3 (3.1%)	5 (2.9%)
[b]	2 (2.6%)	8 (8.3%)	10 (5.8%)
[c, x, f]	1 (1.3%)	0 (0%)	1 (0.6%)
[c, x]	1 (1.3%)	0 (0%)	1 (0.6%)
[c]	1 (1.3%)	2 (2.1%)	3 (1.7%)
[f, s]	3 (3.9%)	5 (5.2%)	8 (4.6%)
[f, x]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[f]	4 (5.2%)	4 (4.2%)	8 (4.6%)
[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, f]	2 (2.6%)	0 (0%)	2 (1.2%)
[p, x]	3 (3.9%)	1 (1.0%)	4 (2.3%)
[s, o]	2 (2.6%)	0 (0%)	2 (1.2%)
[s]	4 (5.2%)	5 (5.2%)	9 (5.2%)
[x, f, s]	7 (9.1%)	6 (6.3%)	13 (7.5%)
[x, f]	14 (18.2%)	15 (15.6%)	29 (16.8%)
[x, p]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[x, s]	1 (1.3%)	2 (2.1%)	3 (1.7%)
[x]	23 (29.9%)	25 (26.0%)	48 (27.7%)

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

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

	e	p	Overall
[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%)
[r]	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, g, n, r]	0 (0%)	1 (1.0%)	1 (0.6%)
[y, o, r, n]	0 (0%)	1 (1.0%)	1 (0.6%)
[y, o]	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			
[a, d]	5 (6.5%)	3 (3.1%)	8 (4.6%)
[a]	11 (14.3%)	21 (21.9%)	32 (18.5%)
[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%)
Missing	10 (13.0%)	18 (18.8%)	28 (16.2%)
gill-spacing			
[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%)
Missing	31 (40.3%)	40 (41.7%)	71 (41.0%)
gill-color			
[b, u]	1 (1.3%)	0 (0%)	1 (0.6%)
[b]	1 (1.3%)	0 (0%)	1 (0.6%)
[f]	4 (5.2%)	6 (6.3%)	10 (5.8%)
[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, y]	1 (1.3%)	0 (0%)	1 (0.6%)
[g, w]	2 (2.6%)	0 (0%)	2 (1.2%)
[g]	3 (3.9%)	1 (1.0%)	4 (2.3%)
[k, n]	2 (2.6%)	4 (4.2%)	6 (3.5%)
[k, p, w]	1 (1.3%)	0 (0%)	1 (0.6%)
[n, y]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[n]	3 (3.9%)	8 (8.3%)	11 (6.4%)
[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%)
[o]	2 (2.6%)	2 (2.1%)	4 (2.3%)
[p, n, k]	1 (1.3%)	0 (0%)	1 (0.6%)
[p, n]	1 (1.3%)	0 (0%)	1 (0.6%)
[p, w]	3 (3.9%)	2 (2.1%)	5 (2.9%)
[p]	3 (3.9%)	5 (5.2%)	8 (4.6%)

	e	p	Overall
[r]	1 (1.3%)	0 (0%)	1 (0.6%)
[u, w]	1 (1.3%)	0 (0%)	1 (0.6%)
[w, n]	3 (3.9%)	2 (2.1%)	5 (2.9%)
[w, p, y]	1 (1.3%)	0 (0%)	1 (0.6%)
[w, p]	1 (1.3%)	2 (2.1%)	3 (1.7%)
[w, u, g, n]	1 (1.3%)	0 (0%)	1 (0.6%)
[w, y]	3 (3.9%)	2 (2.1%)	5 (2.9%)
[w]	21 (27.3%)	15 (15.6%)	36 (20.8%)
[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%)
[y]	6 (7.8%)	7 (7.3%)	13 (7.5%)
[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, r]	0 (0%)	1 (1.0%)	1 (0.6%)
[p, y]	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, 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, g]	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%)
stem-height			
[10, 15]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[12, 20]	1 (1.3%)	0 (0%)	1 (0.6%)
[15, 35]	1 (1.3%)	0 (0%)	1 (0.6%)
[2, 3]	1 (1.3%)	0 (0%)	1 (0.6%)
[2, 4]	1 (1.3%)	3 (3.1%)	4 (2.3%)
[2, 5]	1 (1.3%)	10 (10.4%)	11 (6.4%)
[2, 6]	1 (1.3%)	2 (2.1%)	3 (1.7%)
[2, 7]	1 (1.3%)	0 (0%)	1 (0.6%)
[2, 8]	1 (1.3%)	0 (0%)	1 (0.6%)
[3, 10]	3 (3.9%)	1 (1.0%)	4 (2.3%)
[3, 4]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[3, 6]	7 (9.1%)	8 (8.3%)	15 (8.7%)
[3, 7]	3 (3.9%)	2 (2.1%)	5 (2.9%)

	e	p	Overall
[3, 8]	5 (6.5%)	5 (5.2%)	10 (5.8%)
[4, 10]	10 (13.0%)	6 (6.3%)	16 (9.2%)
[4, 6]	3 (3.9%)	4 (4.2%)	7 (4.0%)
[4, 7]	1 (1.3%)	6 (6.3%)	7 (4.0%)
[4, 8]	11 (14.3%)	10 (10.4%)	21 (12.1%)
[5, 10]	6 (7.8%)	2 (2.1%)	8 (4.6%)
[5, 12]	2 (2.6%)	2 (2.1%)	4 (2.3%)
[5, 15]	1 (1.3%)	2 (2.1%)	3 (1.7%)
[5, 7]	2 (2.6%)	1 (1.0%)	3 (1.7%)
[5, 8]	3 (3.9%)	2 (2.1%)	5 (2.9%)
[5, 9]	1 (1.3%)	0 (0%)	1 (0.6%)
[6, 12]	1 (1.3%)	3 (3.1%)	4 (2.3%)
[7, 11]	1 (1.3%)	0 (0%)	1 (0.6%)
[7, 15]	1 (1.3%)	0 (0%)	1 (0.6%)
[7, 9]	1 (1.3%)	0 (0%)	1 (0.6%)
[8, 10]	1 (1.3%)	0 (0%)	1 (0.6%)
[8, 12]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[8, 15]	1 (1.3%)	0 (0%)	1 (0.6%)
[8, 25]	1 (1.3%)	0 (0%)	1 (0.6%)
[8, 30]	1 (1.3%)	0 (0%)	1 (0.6%)
[0]	0 (0%)	3 (3.1%)	3 (1.7%)
[1, 2]	0 (0%)	1 (1.0%)	1 (0.6%)
[1, 3]	0 (0%)	1 (1.0%)	1 (0.6%)
[10, 12]	0 (0%)	2 (2.1%)	2 (1.2%)
[10, 20]	0 (0%)	1 (1.0%)	1 (0.6%)
[15, 20]	0 (0%)	1 (1.0%)	1 (0.6%)
[3, 5]	0 (0%)	2 (2.1%)	2 (1.2%)
[4, 5]	0 (0%)	1 (1.0%)	1 (0.6%)
[6, 10]	0 (0%)	6 (6.3%)	6 (3.5%)
[6, 14]	0 (0%)	1 (1.0%)	1 (0.6%)
[6, 15]	0 (0%)	3 (3.1%)	3 (1.7%)
[6, 18]	0 (0%)	1 (1.0%)	1 (0.6%)
[8, 20]	0 (0%)	1 (1.0%)	1 (0.6%)
stem-width			
[1, 2]	2 (2.6%)	3 (3.1%)	5 (2.9%)
[1, 3]	1 (1.3%)	0 (0%)	1 (0.6%)
[1]	1 (1.3%)	2 (2.1%)	3 (1.7%)
[10, 15]	9 (11.7%)	6 (6.3%)	15 (8.7%)
[10, 18]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[10, 20]	6 (7.8%)	10 (10.4%)	16 (9.2%)
[10, 25]	2 (2.6%)	1 (1.0%)	3 (1.7%)
[10, 30]	1 (1.3%)	0 (0%)	1 (0.6%)
[10, 60]	1 (1.3%)	0 (0%)	1 (0.6%)
[10]	3 (3.9%)	1 (1.0%)	4 (2.3%)
[12, 18]	1 (1.3%)	0 (0%)	1 (0.6%)
[15, 20]	5 (6.5%)	4 (4.2%)	9 (5.2%)
[15, 25]	5 (6.5%)	1 (1.0%)	6 (3.5%)
[15, 30]	3 (3.9%)	1 (1.0%)	4 (2.3%)
[2, 3]	1 (1.3%)	8 (8.3%)	9 (5.2%)
[2, 4]	2 (2.6%)	4 (4.2%)	6 (3.5%)
[2, 5]	2 (2.6%)	0 (0%)	2 (1.2%)
[20, 25]	1 (1.3%)	0 (0%)	1 (0.6%)

	e	p	Overall
[20, 30]	4 (5.2%)	2 (2.1%)	6 (3.5%)
[20, 40]	1 (1.3%)	5 (5.2%)	6 (3.5%)
[20, 80]	1 (1.3%)	0 (0%)	1 (0.6%)
[3, 5]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[3, 6]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[3, 7]	1 (1.3%)	0 (0%)	1 (0.6%)
[3, 8]	1 (1.3%)	3 (3.1%)	4 (2.3%)
[30, 40]	1 (1.3%)	0 (0%)	1 (0.6%)
[4, 8]	3 (3.9%)	5 (5.2%)	8 (4.6%)
[40, 100]	1 (1.3%)	0 (0%)	1 (0.6%)
[5, 10]	4 (5.2%)	9 (9.4%)	13 (7.5%)
[5, 8]	2 (2.6%)	3 (3.1%)	5 (2.9%)
[6, 10]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[6, 12]	3 (3.9%)	2 (2.1%)	5 (2.9%)
[8, 12]	3 (3.9%)	2 (2.1%)	5 (2.9%)
[8, 15]	1 (1.3%)	2 (2.1%)	3 (1.7%)
[8, 20]	1 (1.3%)	0 (0%)	1 (0.6%)
[0.5, 1]	0 (0%)	1 (1.0%)	1 (0.6%)
[0]	0 (0%)	3 (3.1%)	3 (1.7%)
[15, 40]	0 (0%)	1 (1.0%)	1 (0.6%)
[2]	0 (0%)	1 (1.0%)	1 (0.6%)
[20, 50]	0 (0%)	1 (1.0%)	1 (0.6%)
[20, 60]	0 (0%)	1 (1.0%)	1 (0.6%)
[3, 4]	0 (0%)	3 (3.1%)	3 (1.7%)
[4, 5]	0 (0%)	1 (1.0%)	1 (0.6%)
[4, 6]	0 (0%)	1 (1.0%)	1 (0.6%)
[4, 7]	0 (0%)	2 (2.1%)	2 (1.2%)
[5, 12]	0 (0%)	1 (1.0%)	1 (0.6%)
[7, 15]	0 (0%)	1 (1.0%)	1 (0.6%)
[8, 18]	0 (0%)	1 (1.0%)	1 (0.6%)
stem-root			
[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%)
Missing	67 (87.0%)	79 (82.3%)	146 (84.4%)
stem-surface			
[i, t]	1 (1.3%)	0 (0%)	1 (0.6%)
[i]	4 (5.2%)	7 (7.3%)	11 (6.4%)
[k, s]	1 (1.3%)	0 (0%)	1 (0.6%)
[k]	1 (1.3%)	3 (3.1%)	4 (2.3%)
[s]	9 (11.7%)	6 (6.3%)	15 (8.7%)
[t]	3 (3.9%)	4 (4.2%)	7 (4.0%)
[y, s]	1 (1.3%)	0 (0%)	1 (0.6%)
[y]	4 (5.2%)	9 (9.4%)	13 (7.5%)
[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%)

	e	p	Overall
Missing	53 (68.8%)	55 (57.3%)	108 (62.4%)
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, 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%)
[g]	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, 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%)
[n]	15 (19.5%)	20 (20.8%)	35 (20.2%)
[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, 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%)
[w]	32 (41.6%)	25 (26.0%)	57 (32.9%)
[y]	5 (6.5%)	8 (8.3%)	13 (7.5%)
[e, u, y]	0 (0%)	1 (1.0%)	1 (0.6%)
[e]	0 (0%)	1 (1.0%)	1 (0.6%)
[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			
[u]	3 (3.9%)	6 (6.3%)	9 (5.2%)
Missing	74 (96.1%)	90 (93.8%)	164 (94.8%)
veil-color			
[w]	7 (9.1%)	8 (8.3%)	15 (8.7%)
[y, w]	1 (1.3%)	0 (0%)	1 (0.6%)
[y]	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%)

	e	p	Overall
[n]	0 (0%)	1 (1.0%)	1 (0.6%)
[u]	0 (0%)	1 (1.0%)	1 (0.6%)
Missing	68 (88.3%)	84 (87.5%)	152 (87.9%)
has-ring			
[f]	60 (77.9%)	70 (72.9%)	130 (75.1%)
[t]	17 (22.1%)	26 (27.1%)	43 (24.9%)
ring-type			
[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, p]	1 (1.3%)	0 (0%)	1 (0.6%)
[l, r]	2 (2.6%)	0 (0%)	2 (1.2%)
[l]	1 (1.3%)	1 (1.0%)	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%)
Missing	4 (5.2%)	3 (3.1%)	7 (4.0%)
Spore-print-color			
[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%)
[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%)
Missing	72 (93.5%)	83 (86.5%)	155 (89.6%)
habitat			
[d, h]	1 (1.3%)	3 (3.1%)	4 (2.3%)
[d]	47 (61.0%)	57 (59.4%)	104 (60.1%)
[g, d, h]	1 (1.3%)	0 (0%)	1 (0.6%)
[g, d]	6 (7.8%)	4 (4.2%)	10 (5.8%)
[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, d]	1 (1.3%)	4 (4.2%)	5 (2.9%)
[g, m]	3 (3.9%)	2 (2.1%)	5 (2.9%)
[g, u, d]	1 (1.3%)	0 (0%)	1 (0.6%)
[g]	1 (1.3%)	10 (10.4%)	11 (6.4%)
[l, d, h]	1 (1.3%)	0 (0%)	1 (0.6%)
[l, d]	7 (9.1%)	6 (6.3%)	13 (7.5%)
[l, h]	1 (1.3%)	0 (0%)	1 (0.6%)
[l]	1 (1.3%)	0 (0%)	1 (0.6%)
[m, d]	2 (2.6%)	1 (1.0%)	3 (1.7%)
[m]	1 (1.3%)	1 (1.0%)	2 (1.2%)
[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%)

	e	p	Overall
[p, d]	0 (0%)	2 (2.1%)	2 (1.2%)
season			
[a, w]	9 (11.7%)	6 (6.3%)	15 (8.7%)
[a]	5 (6.5%)	11 (11.5%)	16 (9.2%)
[s, a, w]	1 (1.3%)	0 (0%)	1 (0.6%)
[s, u, a, w]	7 (9.1%)	6 (6.3%)	13 (7.5%)
[s, u, a]	1 (1.3%)	4 (4.2%)	5 (2.9%)
[s, u]	2 (2.6%)	1 (1.0%)	3 (1.7%)
[s]	1 (1.3%)	0 (0%)	1 (0.6%)
[u, a, w]	8 (10.4%)	4 (4.2%)	12 (6.9%)
[u, a]	43 (55.8%)	63 (65.6%)	106 (61.3%)
[u]	0 (0%)	1 (1.0%)	1 (0.6%)