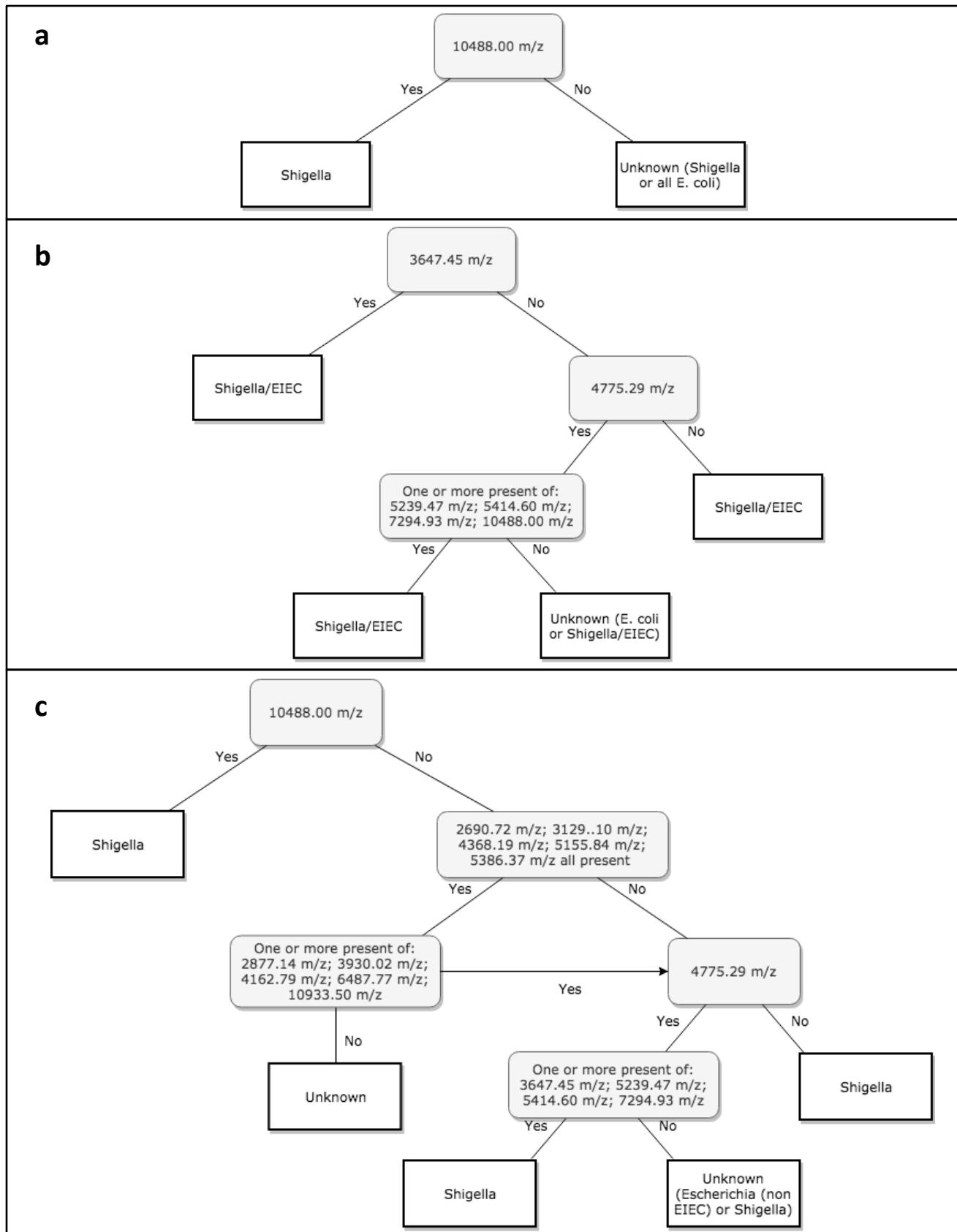


**Supplementary Figure S1.** Decision diagrams of assigned biomarkers

a. Biomarkers at genus level. b. Biomarkers at pathotype level. c. Biomarkers at group level



**Supplementary Table S1.** Comparison of performance of a custom-made database and classifiers based on all 288

isolates or based on an evenly distribution of 17 isolates for each species (6\*17)

Correct identification with MALDI-TOF, direct smear:				Correct identification with MALDI-TOF, ethanol-formic acid extraction:			
Custom-made database, training set 288 isolates	Custom-made database, training set 6*17 isolates	Classifier models, training set 288 isolates	Classifier models, training set 6*17 isolates	Custom-made database, training set 288 isolates	Custom-made database, training set 6*17 isolates	Classifier models, training set 288 isolates	Classifier models, training set 6*17 isolates
n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
<b>Genus</b>							
<i>Shigella</i> (n = 217)	205 (94)	196 (90)	209 (96)	157 (72)	207 (95)	201 (93)	217 (100)
<i>E. coli</i> (n = 52)	26 (50)	28 (54)	11 (21)	11 (21)	35 (67)	27 (52)	4 (8)
<b>Unassigned</b>	1 (0.4)	1 (0.4)	0 (0)	0 (0)	0 (0)	2 (1)	0 (0)
<b>Pathotype</b>							
<i>Shigella/EIEC</i> (n = 248)	233 (94)	222 (90)	145 (58)	157 (63)	245 (99)	241 (97)	147 (59)
<b>Other <i>E. coli</i> (n = 21)</b>	6 (29)	10 (48)	14 (67)	1 (5)	11 (52)	9 (43)	6 (29)
<b>Unassigned</b>	1 (0.4)	1 (0.4)	0 (0)	0 (0)	0 (0)	2 (1)	0 (0)
<b>Group</b>							
<i>Shigella</i> (n = 217)	205 (94)	196 (90)	131 (60)	142 (65)	207 (95)	201 (93)	134 (62)
<b>EIEC</b> (n = 31)	9 (29)	5 (16)	2 (6)	1 (3)	19 (61)	11 (35)	0 (0)
<b>Other <i>E. coli</i> (n = 21)</b>	6 (29)	10 (48)	13 (62)	1 (5)	11 (52)	9 (43)	7 (33)
<b>Unassigned</b>	1 (0.4)	1 (0.4)	0 (0)	0 (0)	0 (0)	2 (1)	0 (0)
<b>Species</b>							
<i>S. dysenteriae</i> (n = 11)	5 (45)	5 (45)	0 (0)	0 (0)	7 (64)	7 (64)	0 (0)
<i>S. flexneri</i> (n = 77)	70 (91)	59 (77)	6 (8)	0 (0)	73 (95)	64 (83)	3 (4)
<i>S. boydii</i> (n = 14)	1 (7)	4 (29)	0 (0)	0 (0)	0 (0)	3 (21)	0 (0)
<i>S. sonnei</i> (n = 115)	110 (96)	105 (91)	92 (80)	60 (52)	112 (97)	112 (97)	101 (88)
<b>EIEC</b> (n = 31)	9 (29)	5 (16)	1 (3)	2 (6)	19 (61)	11 (35)	3 (10)
<b>Other <i>E. coli</i> (n = 21)</b>	6 (29)	10 (48)	12 (57)	2 (10)	11 (52)	9 (43)	4 (19)
<b>Unassigned</b>	1 (0.4)	1 (0.4)	0 (0)	0 (0)	0 (0)	2 (1)	0 (0)

Percentage correct identification of total isolates (n = 269) is displayed.