Package ‘MSMB’

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Title  Data sets for the book 'Modern Statistics for Biology'
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            S.P. Holmes and W. Huber.
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**brcalymphnode**  
*Coordinates and cell types in a histopathology slide of a breast cancer patient’s lymph node*

**Description**

Coordinates and cell types in a histopathology slide of a breast cancer patient’s lymph node.

**Usage**

```r
data("brcalymphnode")
```

**Format**

A `data.frame`.

**Details**

This dataset is used as an example in the 'Image data' chapter. See there for more details about it.

**Examples**

```r
data("brcalymphnode")
plot(x = brcalymphnode$x, y = brcalymphnode$y, pch=".", col = brcalymphnode$class)
```

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**ukraine_dists**  
*Coordinates of and pairwise distances between hero cities and oblast capitals in Ukraine*

**Description**

This dataset is used as an example in the 'Multivariate methods for heterogeneous data' chapter.

**Usage**

```r
data("ukraine_dists")
data("ukraine_coords")
```

**Format**

`ukraine_dists` is an object of S3 class `dist`. `ukraine_coords` is a `tibble`.

**Details**

The two datasets were constructed using the R code in the file `ukraine-dists.R` in the `scripts` directory of this package. Briefly, the city and place names are hardcoded in the script, coordinates were queried from OpenStreetMap using the `geo` function in the `tidygeocoder`, and pairwise geodesic distances computed using the `geodist` function from the eponymous package.
Examples

data("ukraine_coords")
plot(x = ukraine_coords$lon, y = ukraine_coords$lat, pch = 16, cex = 0.7, col = "#0057b7", asp = 1 / cos(pi / 180 * 48))
text(x = ukraine_coords$lon, y = ukraine_coords$lat, labels = ukraine_coords$city, adj = c(0.5, -0.2))
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