

# Package: csmaps (via r-universe)

July 1, 2026

**Title** Preformatted Maps of Norway that Don't Need Geolibraries

**Version** 2025.8.21

**Description** Provides datasets containing preformatted maps of Norway at the county, municipality, and ward (Oslo only) level for redistricting in 2024, 2020, 2018, and 2017. Multiple layouts are provided (normal, split, and with an insert for Oslo), allowing the user to rapidly create choropleth maps of Norway without any geolibraries.

**Depends** R (>= 3.5.0)

**License** MIT + file LICENSE

**URL** <https://niphr.github.io/csmaps/>, <https://github.com/niphr/csmaps>

**BugReports** <https://github.com/niphr/csmaps/issues>

**LazyData** true

**Imports** data.table, ggplot2, utils

**Suggests** testthat, knitr, rmarkdown, magrittr, ggrepel, leaflet, sf, csdata (>= 2023.5.22)

**RoxygenNote** 7.3.2

**VignetteBuilder** knitr

**Encoding** UTF-8

**LazyDataCompression** xz

**Config/Needs/website** niphr/cstemplate

**Repository** <https://niphr.r-universe.dev>

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nor\_county\_map\_bxxxx\_default\_dt

*Maps of Norwegian counties in data.table format*

---

### Description

We conveniently package map datasets for Norwegian counties (taken from Geonorge) that can be used in ggplot2 without needing any geo libraries. This data is licensed under Creative Commons BY 4.0 (CC BY 4.0).

### Usage

nor\_county\_map\_b2024\_default\_dt

nor\_county\_map\_b2020\_default\_dt

nor\_county\_map\_b2019\_default\_dt

nor\_county\_map\_b2017\_default\_dt

nor\_county\_position\_geolabels\_b2024\_default\_dt

nor\_county\_position\_geolabels\_b2020\_default\_dt

nor\_county\_position\_geolabels\_b2019\_default\_dt

nor\_county\_position\_geolabels\_b2017\_default\_dt

**Format**

**long** Longitude in decimal degrees (WGS84).

**lat** Latitude in decimal degrees (WGS84).

**order** The order that this line should be plotted in.

**group** Polygon group identifier; use as the group aesthetic in ggplot2.

**location\_code** County code (e.g. "county\_nor03").

An object of class `data.table` (inherits from `data.frame`) with 4479 rows and 5 columns.

An object of class `data.table` (inherits from `data.frame`) with 4722 rows and 5 columns.

An object of class `data.table` (inherits from `data.frame`) with 4531 rows and 5 columns.

An object of class `data.table` (inherits from `data.frame`) with 15 rows and 4 columns.

An object of class `data.table` (inherits from `data.frame`) with 11 rows and 4 columns.

An object of class `data.table` (inherits from `data.frame`) with 18 rows and 4 columns.

An object of class `data.table` (inherits from `data.frame`) with 19 rows and 4 columns.

**Details**

Borders for 2024, 2020, 2019, and 2017 are provided.

**Source**

Kartverket / Geonorge <https://www.geonorge.no/>. License: CC BY 4.0.

**Examples**

```
# 2024 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_county_map_b2024_default_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.4
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

# 2020 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_county_map_b2020_default_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.4
)
```

```

)
q <- q + theme_void()
q <- q + coord_quickmap()
q

# 2019 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_county_map_b2019_default_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.4
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

# 2017 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_county_map_b2017_default_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.4
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

```

---

nor\_county\_map\_bxxxx\_default\_sf

*Maps of Norwegian counties in sf format*

---

## Description

We conveniently package map datasets for Norwegian counties (taken from Geonorge) as simple features objects, suitable for use with the **sf** package and `ggplot2::geom_sf()`. This data is licensed under Creative Commons BY 4.0 (CC BY 4.0).

## Usage

nor\_county\_map\_b2024\_default\_sf

nor\_county\_map\_b2020\_default\_sf

```
nor_county_map_b2019_default_sf
```

```
nor_county_map_b2017_default_sf
```

### Format

**geometry** MULTIPOLYGON geometry column (CRS: WGS84 / EPSG:4326).

**location\_code** County code (e.g. "county\_nor03").

An object of class sf (inherits from data.frame) with 11 rows and 2 columns.

An object of class sf (inherits from data.frame) with 18 rows and 2 columns.

An object of class sf (inherits from data.frame) with 19 rows and 2 columns.

### Details

Borders for 2024, 2020, 2019, and 2017 are provided.

### Source

Kartverket / Geonorge <https://www.geonorge.no/>. License: CC BY 4.0.

### Examples

```
library(ggplot2)
q <- ggplot(csmaps::nor_county_map_b2024_default_sf)
q <- q + geom_sf(fill = "white", color = "black", linewidth = 0.4)
q <- q + theme_void()
q
```

---

```
nor_county_map_bxxxx_insert_oslo_dt
```

*Maps of Norwegian counties with an insert for Oslo in data.table format*

---

### Description

We conveniently package map datasets for Norwegian counties (taken from Geonorge) that can be used in ggplot2 without needing any geo libraries. An inset panel positions Oslo in the lower-left corner for better readability. This data is licensed under Creative Commons BY 4.0 (CC BY 4.0).

### Usage

```
nor_county_map_b2024_insert_oslo_dt
```

```
nor_county_map_b2020_insert_oslo_dt
```

```
nor_county_map_b2019_insert_oslo_dt
```

```

nor_county_map_b2017_insert_oslo_dt
nor_county_position_geolabels_b2024_insert_oslo_dt
nor_county_position_geolabels_b2020_insert_oslo_dt
nor_county_position_geolabels_b2019_insert_oslo_dt
nor_county_position_geolabels_b2017_insert_oslo_dt

```

### Format

**long** Longitude in decimal degrees (WGS84).

**lat** Latitude in decimal degrees (WGS84).

**order** The order that this line should be plotted in.

**group** Polygon group identifier; use as the group aesthetic in ggplot2.

**location\_code** County code (e.g. "county\_nor03").

An object of class `data.table` (inherits from `data.frame`) with 4537 rows and 5 columns.

An object of class `data.table` (inherits from `data.frame`) with 4780 rows and 5 columns.

An object of class `data.table` (inherits from `data.frame`) with 4589 rows and 5 columns.

An object of class `data.table` (inherits from `data.frame`) with 15 rows and 4 columns.

An object of class `data.table` (inherits from `data.frame`) with 11 rows and 4 columns.

An object of class `data.table` (inherits from `data.frame`) with 18 rows and 4 columns.

An object of class `data.table` (inherits from `data.frame`) with 19 rows and 4 columns.

### Details

Borders for 2024, 2020, 2019, and 2017 are provided.

### Source

Kartverket / Geonorge <https://www.geonorge.no/>. License: CC BY 4.0.

### Examples

```

# 2024 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_county_map_b2024_insert_oslo_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.4
)
q <- q + annotate(
  "text",

```

```
x = csmaps::nor_xxx_position_title_insert_oslo_b2024_insert_oslo_dt$long,
y = csmaps::nor_xxx_position_title_insert_oslo_b2024_insert_oslo_dt$lat,
label = "Oslo"
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

# 2020 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_county_map_b2020_insert_oslo_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.4
)
q <- q + annotate(
  "text",
  x = csmaps::nor_xxx_position_title_insert_oslo_b2020_insert_oslo_dt$long,
  y = csmaps::nor_xxx_position_title_insert_oslo_b2020_insert_oslo_dt$lat,
  label = "Oslo"
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

# 2019 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_county_map_b2019_insert_oslo_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.4
)
q <- q + annotate(
  "text",
  x = csmaps::nor_xxx_position_title_insert_oslo_b2019_insert_oslo_dt$long,
  y = csmaps::nor_xxx_position_title_insert_oslo_b2019_insert_oslo_dt$lat,
  label = "Oslo"
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

# 2017 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
```

```

data = csmaps::nor_county_map_b2017_insert_oslo_dt,
mapping = aes(group = group),
color = "black",
fill = "white",
linewidth = 0.4
)
q <- q + annotate(
  "text",
  x = csmaps::nor_xxx_position_title_insert_oslo_b2017_insert_oslo_dt$long,
  y = csmaps::nor_xxx_position_title_insert_oslo_b2017_insert_oslo_dt$lat,
  label = "Oslo"
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

```

---

nor\_county\_map\_bxxxx\_split\_dt

*Split map of Norwegian counties in data.table format*

---

## Description

We conveniently package map datasets for Norwegian counties (taken from Geonorge) that can be used in ggplot2 without needing any geo libraries. The split layout repositions Svalbard and Jan Mayen as separate panels to reduce whitespace. This data is licensed under Creative Commons BY 4.0 (CC BY 4.0).

Returns a list of ggplot2::annotate() layers that draw a white rectangle and an "Oslo" text label in the lower-left panel of any \_split\_dt map layout. Add this list to a **ggplot2** plot with +.

## Usage

```

nor_county_map_b2024_split_dt
nor_county_map_b2020_split_dt
nor_county_position_geolabels_b2024_split_dt
nor_county_position_geolabels_b2020_split_dt
annotate_oslo_nor_map_bxxxx_split_dt()

```

## Format

**long** Longitude in decimal degrees (WGS84).  
**lat** Latitude in decimal degrees (WGS84).  
**order** The order that this line should be plotted in.  
**group** Polygon group identifier; use as the group aesthetic in ggplot2.

**location\_code** County code (e.g. "county\_nor03").

An object of class `data.table` (inherits from `data.frame`) with 4537 rows and 5 columns.

An object of class `data.table` (inherits from `data.frame`) with 15 rows and 4 columns.

An object of class `data.table` (inherits from `data.frame`) with 11 rows and 4 columns.

## Details

Borders for 2024 and 2020 are provided.

## Value

A list of two `ggplot2` layer objects (a rectangle and a text annotation). Add the list directly to a `ggplot` with `+`.

## Source

Kartverket / Geonorge <https://www.geonorge.no/>. License: CC BY 4.0.

## Examples

```
# 2024 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + csmaps::annotate_oslo_nor_map_bxxxx_split_dt()
q <- q + geom_polygon(
  data = csmaps::nor_county_map_b2024_split_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.4
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

# 2024 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + csmaps::annotate_oslo_nor_map_bxxxx_split_dt()
q <- q + geom_polygon(
  data = csmaps::nor_county_map_b2024_split_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.4
)
q <- q + ggrepel::geom_label_repel(
  data = csmaps::nor_county_position_geolabels_b2024_split_dt[repel==TRUE],
  mapping = aes(x = long, y = lat, label = location_code),
  size = 3,
  label.size = 0.1,
```

```

    label.r = grid::unit(0, "lines"),
    min.segment.length = 0
  )
q <- q + geom_label(
  data = csmaps::nor_county_position_geolabels_b2024_split_dt[repel==FALSE],
  mapping = aes(x = long, y = lat, label = location_code),
  size = 3,
  label.size = 0.1,
  label.r = grid::unit(0, "lines")
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

# 2020 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + csmaps::annotate_oslo_nor_map_bxxxx_split_dt()
q <- q + geom_polygon(
  data = csmaps::nor_county_map_b2020_split_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.4
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

```

---

nor\_municip\_map\_bxxxx\_default\_dt

*Maps of Norwegian municipalities in data.table format*

---

## Description

We conveniently package map datasets for Norwegian municipalities (taken from Geonorge) that can be used in ggplot2 without needing any geo libraries. This data is licensed under Creative Commons BY 4.0 (CC BY 4.0).

## Usage

nor\_municip\_map\_b2024\_default\_dt

nor\_municip\_map\_b2020\_default\_dt

nor\_municip\_map\_b2019\_default\_dt

nor\_municip\_position\_geolabels\_b2024\_default\_dt

*nor\_municip\_position\_geolabels\_b2020\_default\_dt**nor\_municip\_position\_geolabels\_b2019\_default\_dt***Format****long** Longitude in decimal degrees (WGS84).**lat** Latitude in decimal degrees (WGS84).**order** The order that this line should be plotted in.**group** Polygon group identifier; use as the group aesthetic in ggplot2.**location\_code** Municipality code (e.g. "municip\_nor0301").An object of class `data.table` (inherits from `data.frame`) with 30601 rows and 5 columns.An object of class `data.table` (inherits from `data.frame`) with 31705 rows and 5 columns.An object of class `data.table` (inherits from `data.frame`) with 356 rows and 3 columns.An object of class `data.table` (inherits from `data.frame`) with 356 rows and 3 columns.An object of class `data.table` (inherits from `data.frame`) with 422 rows and 3 columns.**Details**

Borders for 2024, 2020, and 2019 are provided.

**Source**Kartverket / Geonorge <https://www.geonorge.no/>. License: CC BY 4.0.**Examples**

```
# 2024 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_municip_map_b2024_default_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.2
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

# 2020 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_municip_map_b2020_default_dt,
  mapping = aes(group = group),
  color = "black",
```

```

    fill = "white",
    linewidth = 0.2
  )
q <- q + theme_void()
q <- q + coord_quickmap()
q

# 2019 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_municip_map_b2019_default_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.2
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

```

---

nor\_municip\_map\_bxxxx\_default\_sf

*Maps of Norwegian municipalities in sf format*

---

## Description

We conveniently package map datasets for Norwegian municipalities (taken from Geonorge) as simple features objects, suitable for use with the `sf` package and `ggplot2::geom_sf()`. This data is licensed under Creative Commons BY 4.0 (CC BY 4.0).

## Usage

`nor_municip_map_b2024_default_sf`

`nor_municip_map_b2020_default_sf`

`nor_municip_map_b2019_default_sf`

## Format

**geometry** MULTIPOLYGON geometry column (CRS: WGS84 / EPSG:4326).

**location\_code** Municipality code (e.g. "municip\_nor0301").

An object of class `sf` (inherits from `data.frame`) with 356 rows and 2 columns.

An object of class `sf` (inherits from `data.frame`) with 422 rows and 2 columns.

## Details

Borders for 2024, 2020, and 2019 are provided.

**Source**

Kartverket / Geonorge <https://www.geonorge.no/>. License: CC BY 4.0.

**Examples**

```
library(ggplot2)
q <- ggplot(csmaps::nor_municip_map_b2024_default_sf)
q <- q + geom_sf(fill = "white", color = "black", linewidth = 0.2)
q <- q + theme_void()
q
```

---

nor\_municip\_map\_bxxxx\_insert\_oslo\_dt

*Maps of Norwegian municipalities with an insert for Oslo in data.table format*

---

**Description**

We conveniently package map datasets for Norwegian municipalities (taken from Geonorge) that can be used in ggplot2 without needing any geo libraries. An inset panel positions Oslo wards in the lower-left corner for better readability. This data is licensed under Creative Commons BY 4.0 (CC BY 4.0).

**Usage**

```
nor_municip_map_b2024_insert_oslo_dt
nor_municip_map_b2020_insert_oslo_dt
nor_municip_map_b2019_insert_oslo_dt
nor_municip_position_geolabels_b2024_insert_oslo_dt
nor_municip_position_geolabels_b2020_insert_oslo_dt
nor_municip_position_geolabels_b2019_insert_oslo_dt
```

**Format**

**long** Longitude in decimal degrees (WGS84).  
**lat** Latitude in decimal degrees (WGS84).  
**order** The order that this line should be plotted in.  
**group** Polygon group identifier; use as the group aesthetic in ggplot2.

**location\_code** Municipality code (e.g. "municip\_nor0301").

An object of class `data.table` (inherits from `data.frame`) with 30659 rows and 5 columns.

An object of class `data.table` (inherits from `data.frame`) with 31763 rows and 5 columns.

An object of class `data.table` (inherits from `data.frame`) with 356 rows and 3 columns.

An object of class `data.table` (inherits from `data.frame`) with 356 rows and 3 columns.

An object of class `data.table` (inherits from `data.frame`) with 422 rows and 3 columns.

## Details

Borders for 2024, 2020, and 2019 are provided.

## Source

Kartverket / Geonorge <https://www.geonorge.no/>. License: CC BY 4.0.

## Examples

```
# 2024 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_municip_map_b2024_insert_oslo_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.2
)
q <- q + annotate(
  "text",
  x = csmaps::nor_xxx_position_title_insert_oslo_b2024_insert_oslo_dt$long,
  y = csmaps::nor_xxx_position_title_insert_oslo_b2024_insert_oslo_dt$lat,
  label = "Oslo"
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

# 2020 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_municip_map_b2020_insert_oslo_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.2
)
q <- q + annotate(
  "text",
  x = csmaps::nor_xxx_position_title_insert_oslo_b2020_insert_oslo_dt$long,
```

```

    y = csmaps::nor_xxx_position_title_insert_oslo_b2020_insert_oslo_dt$lat,
    label = "Oslo"
  )
q <- q + theme_void()
q <- q + coord_quickmap()
q

# 2019 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_municip_map_b2019_insert_oslo_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.2
)
q <- q + annotate(
  "text",
  x = csmaps::nor_xxx_position_title_insert_oslo_b2019_insert_oslo_dt$long,
  y = csmaps::nor_xxx_position_title_insert_oslo_b2019_insert_oslo_dt$lat,
  label = "Oslo"
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

```

---

nor\_municip\_map\_bxxxx\_split\_dt

*Split map of Norwegian municipalities in data.table format*

---

## Description

We conveniently package map datasets for Norwegian municipalities (taken from Geonorge) that can be used in ggplot2 without needing any geo libraries. The split layout repositions Svalbard and Jan Mayen as separate panels to reduce whitespace. This data is licensed under Creative Commons BY 4.0 (CC BY 4.0).

## Usage

nor\_municip\_map\_b2024\_split\_dt

nor\_municip\_map\_b2020\_split\_dt

## Format

**long** Longitude in decimal degrees (WGS84).

**lat** Latitude in decimal degrees (WGS84).

**order** The order that this line should be plotted in.

**group** Polygon group identifier; use as the group aesthetic in ggplot2.

**location\_code** Municipality code (e.g. "municip\_nor0301").

An object of class `data.table` (inherits from `data.frame`) with 30601 rows and 5 columns.

### Details

Borders for 2024 and 2020 are provided.

### Source

Kartverket / Geonorge <https://www.geonorge.no/>. License: CC BY 4.0.

### Examples

```
# 2024 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_municip_map_b2024_split_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.2
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

# 2020 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_municip_map_b2020_split_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.2
)
q <- q + theme_void()
q <- q + coord_quickmap()
q
```

---

nor\_xxx\_position\_title\_insert\_oslo\_bxxxx\_insert\_oslo\_dt

*Position of the "Oslo" title label for the insert-Oslo map layout*

---

### Description

A single-row `data.table` giving the longitude/latitude coordinates at which the "Oslo" text label should be placed when using an `_insert_oslo` map dataset.

**Usage**

```
nor_xxx_position_title_insert_oslo_b2024_insert_oslo_dt
nor_xxx_position_title_insert_oslo_b2020_insert_oslo_dt
nor_xxx_position_title_insert_oslo_b2019_insert_oslo_dt
nor_xxx_position_title_insert_oslo_b2017_insert_oslo_dt
```

**Format**

**long** Longitude in decimal degrees (WGS84) for the label anchor.

**lat** Latitude in decimal degrees (WGS84) for the label anchor.

An object of class `data.table` (inherits from `data.frame`) with 1 rows and 2 columns.

An object of class `data.table` (inherits from `data.frame`) with 1 rows and 2 columns.

An object of class `data.table` (inherits from `data.frame`) with 1 rows and 2 columns.

**Source**

Derived from the insert-Oslo layout coordinates; no external source.

**Examples**

```
# 2020 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::nor_municip_map_b2020_insert_oslo_dt,
  mapping = aes(group = group),
  color = "black",
  fill = "white",
  linewidth = 0.4
)
q <- q + annotate(
  "text",
  x = csmaps::nor_xxx_position_title_insert_oslo_b2020_insert_oslo_dt$long,
  y = csmaps::nor_xxx_position_title_insert_oslo_b2020_insert_oslo_dt$lat,
  label = "Oslo"
)
q <- q + theme_void()
q <- q + coord_quickmap()
q
```

---

`oslo_ward_map_bxxxx_default_dt`*Map of Oslo wards (bydeler) in data.table format*

---

## Description

We conveniently package map datasets for Oslo wards (bydeler) (taken from Oslo municipality) that can be used in `ggplot2` without needing any geo libraries. This data is licensed under Creative Commons BY 4.0 (CC BY 4.0).

## Usage

`oslo_ward_map_b2024_default_dt``oslo_ward_map_b2020_default_dt``oslo_ward_position_geolabels_b2024_default_dt``oslo_ward_position_geolabels_b2020_default_dt`

## Format

**long** Longitude in decimal degrees (WGS84).

**lat** Latitude in decimal degrees (WGS84).

**order** The order that this line should be plotted in.

**group** Polygon group identifier; use as the group aesthetic in `ggplot2`.

**location\_code** Ward code (e.g. "wardoslo\_nor030101").

An object of class `data.table` (inherits from `data.frame`) with 1372 rows and 5 columns.

An object of class `data.table` (inherits from `data.frame`) with 15 rows and 3 columns.

An object of class `data.table` (inherits from `data.frame`) with 15 rows and 3 columns.

## Details

Borders provided for 2024, 2020.

## Source

Oslo kommune. License: CC BY 4.0.

## Examples

```
# 2024 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::oslo_ward_map_b2024_default_dt,
```

```
    mapping = aes(group = group, fill = location_code),
    color = "black",
    fill = "white",
    linewidth = 0.4
  )
q <- q + geom_label(
  data = csmaps::oslo_ward_position_geolabels_b2024_default_dt,
  mapping = aes(label = location_code),
  color = "red"
)
q <- q + theme_void()
q <- q + coord_quickmap()
q

# 2020 borders
library(ggplot2)
q <- ggplot(mapping = aes(x = long, y = lat))
q <- q + geom_polygon(
  data = csmaps::oslo_ward_map_b2020_default_dt,
  mapping = aes(group = group, fill = location_code),
  color = "black",
  fill = "white",
  linewidth = 0.4
)
q <- q + geom_label(
  data = csmaps::oslo_ward_position_geolabels_b2020_default_dt,
  mapping = aes(label = location_code),
  color = "red"
)
q <- q + theme_void()
q <- q + coord_quickmap()
q
```

---

oslo\_ward\_map\_bxxxx\_default\_sf

*Map of Oslo wards (bydeler) in sf format*

---

## Description

We conveniently package map datasets for Oslo wards (bydeler) (taken from Oslo municipality) as simple features objects, suitable for use with the `sf` package and `ggplot2::geom_sf()`. This data is licensed under Creative Commons BY 4.0 (CC BY 4.0).

## Usage

oslo\_ward\_map\_b2020\_default\_sf

oslo\_ward\_map\_b2024\_default\_sf

**Format**

**geometry** MULTIPOLYGON geometry column (CRS: WGS84 / EPSG:4326).

**location\_code** Ward code (e.g. "wardoslo\_nor030101").

An object of class sf (inherits from data.frame) with 15 rows and 2 columns.

**Details**

Borders provided for 2024, 2020.

**Source**

Oslo kommune. License: CC BY 4.0.

**Examples**

```
library(ggplot2)
q <- ggplot(csmaps::oslo_ward_map_b2024_default_sf)
q <- q + geom_sf(fill = "white", color = "black", linewidth = 0.4)
q <- q + theme_void()
q
```

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