



MEMBER OF  
BASQUE RESEARCH  
& TECHNOLOGY ALLIANCE

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**Bilbo/Bilbao**

**2025**

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**Itsasaldi-taulak**  
Tablas de mareas

# Urtarrila/Enero 2025

Bilbo/Bilbao

43° 23' N 03° 05' W

Ordu ofiziala/Hora oficial: GMT +1

m Altuera/Altura

☉ Ordua/Hora (GMT)

| Egunak<br>Días | Itsasgora/Pleamar |      |       |      | Itsasbehera/Bajamar |      |       |      |
|----------------|-------------------|------|-------|------|---------------------|------|-------|------|
|                | ☉                 | m    | ☾     | m    | ☉                   | m    | ☾     | m    |
| 1              | 4:18              | 4.39 | 16:42 | 4.16 | 10:28               | 1.04 | 22:41 | 1.17 |
| 2              | 4:58              | 4.44 | 17:23 | 4.16 | 11:09               | 0.99 | 23:22 | 1.17 |
| 3              | 5:39              | 4.44 | 18:06 | 4.10 | 11:52               | 1.00 |       |      |
| 4              | 6:23              | 4.38 | 18:52 | 4.01 | 0:06                | 1.22 | 12:38 | 1.07 |
| 5              | 7:12              | 4.28 | 19:43 | 3.89 | 0:53                | 1.31 | 13:28 | 1.19 |
| ☉ 6            | 8:06              | 4.13 | 20:42 | 3.78 | 1:46                | 1.42 | 14:24 | 1.33 |
| 7              | 9:10              | 3.98 | 21:51 | 3.70 | 2:46                | 1.54 | 15:26 | 1.47 |
| 8              | 10:23             | 3.88 | 23:06 | 3.71 | 3:54                | 1.61 | 16:34 | 1.56 |
| 9              | 11:40             | 3.86 |       |      | 5:08                | 1.61 | 17:44 | 1.56 |
| 10             | 0:17              | 3.81 | 12:50 | 3.92 | 6:21                | 1.50 | 18:50 | 1.49 |
| 11             | 1:20              | 3.99 | 13:51 | 4.03 | 7:25                | 1.34 | 19:47 | 1.38 |
| 12             | 2:15              | 4.17 | 14:44 | 4.13 | 8:22                | 1.17 | 20:38 | 1.26 |
| ☉ 13           | 3:03              | 4.34 | 15:30 | 4.20 | 9:12                | 1.02 | 21:23 | 1.16 |
| 14             | 3:46              | 4.46 | 16:13 | 4.23 | 9:57                | 0.94 | 22:06 | 1.10 |
| 15             | 4:27              | 4.51 | 16:52 | 4.21 | 10:39               | 0.92 | 22:46 | 1.10 |
| 16             | 5:05              | 4.49 | 17:29 | 4.15 | 11:19               | 0.97 | 23:25 | 1.14 |
| 17             | 5:42              | 4.41 | 18:05 | 4.05 | 11:58               | 1.08 |       |      |
| 18             | 6:17              | 4.27 | 18:40 | 3.93 | 0:03                | 1.24 | 12:35 | 1.24 |
| 19             | 6:53              | 4.08 | 19:18 | 3.78 | 0:41                | 1.39 | 13:14 | 1.42 |
| 20             | 7:31              | 3.88 | 19:58 | 3.63 | 1:21                | 1.56 | 13:54 | 1.61 |
| ☉ 21           | 8:14              | 3.67 | 20:47 | 3.49 | 2:04                | 1.75 | 14:39 | 1.79 |
| 22             | 9:06              | 3.48 | 21:48 | 3.39 | 2:55                | 1.92 | 15:33 | 1.94 |
| 23             | 10:14             | 3.34 | 23:02 | 3.37 | 3:57                | 2.04 | 16:38 | 2.02 |
| 24             | 11:34             | 3.33 |       |      | 5:11                | 2.07 | 17:49 | 2.00 |
| 25             | 0:14              | 3.47 | 12:46 | 3.43 | 6:23                | 1.96 | 18:52 | 1.87 |
| 26             | 1:14              | 3.66 | 13:42 | 3.62 | 7:22                | 1.77 | 19:43 | 1.69 |
| 27             | 2:02              | 3.89 | 14:29 | 3.84 | 8:11                | 1.52 | 20:28 | 1.47 |
| 28             | 2:45              | 4.15 | 15:10 | 4.05 | 8:54                | 1.26 | 21:09 | 1.26 |
| ☉ 29           | 3:25              | 4.39 | 15:50 | 4.24 | 9:34                | 1.02 | 21:48 | 1.07 |
| 30             | 4:05              | 4.58 | 16:29 | 4.37 | 10:14               | 0.83 | 22:28 | 0.93 |
| 31             | 4:44              | 4.71 | 17:08 | 4.43 | 10:54               | 0.72 | 23:08 | 0.87 |

# Otsaila/Febrero 2025

Bilbo/Bilbao

43° 23' N 03° 05' W

Ordu ofiziala/Hora oficial: GMT +1

m Altuera/Altura

☉ Ordua/Hora (GMT)

| Egunak<br>Días | Itsasgora/Pleamar |      |       |      | Itsasbehera/Bajamar |      |       |      |
|----------------|-------------------|------|-------|------|---------------------|------|-------|------|
|                | ☉                 | m    | ☾     | m    | ☉                   | m    | ☾     | m    |
| 1              | 5:24              | 4.75 | 17:49 | 4.41 | 11:35               | 0.71 | 23:50 | 0.89 |
| 2              | 6:06              | 4.68 | 18:31 | 4.31 |                     |      | 12:18 | 0.80 |
| 3              | 6:51              | 4.52 | 19:16 | 4.13 | 0:34                | 0.99 | 13:04 | 0.98 |
| 4              | 7:41              | 4.27 | 20:08 | 3.92 | 1:22                | 1.17 | 13:54 | 1.24 |
| ☉ 5            | 8:39              | 3.99 | 21:12 | 3.71 | 2:17                | 1.40 | 14:52 | 1.51 |
| 6              | 9:54              | 3.73 | 22:35 | 3.59 | 3:24                | 1.62 | 16:02 | 1.73 |
| 7              | 11:24             | 3.61 |       |      | 4:46                | 1.74 | 17:23 | 1.83 |
| 8              | 0:05              | 3.64 | 12:48 | 3.67 | 6:12                | 1.69 | 18:41 | 1.76 |
| 9              | 1:17              | 3.83 | 13:53 | 3.82 | 7:25                | 1.51 | 19:44 | 1.60 |
| 10             | 2:13              | 4.06 | 14:43 | 3.98 | 8:21                | 1.30 | 20:33 | 1.41 |
| 11             | 2:59              | 4.27 | 15:24 | 4.11 | 9:07                | 1.12 | 21:15 | 1.24 |
| ☉ 12           | 3:37              | 4.42 | 16:00 | 4.21 | 9:46                | 0.99 | 21:52 | 1.11 |
| 13             | 4:12              | 4.51 | 16:32 | 4.26 | 10:22               | 0.93 | 22:27 | 1.03 |
| 14             | 4:44              | 4.53 | 17:03 | 4.26 | 10:55               | 0.93 | 23:01 | 1.03 |
| 15             | 5:15              | 4.48 | 17:32 | 4.22 | 11:28               | 1.00 | 23:33 | 1.09 |
| 16             | 5:45              | 4.36 | 18:02 | 4.12 | 11:59               | 1.13 |       |      |
| 17             | 6:15              | 4.20 | 18:33 | 3.99 | 0:06                | 1.21 | 12:31 | 1.30 |
| 18             | 6:46              | 3.99 | 19:07 | 3.81 | 0:39                | 1.39 | 13:03 | 1.50 |
| 19             | 7:20              | 3.75 | 19:45 | 3.62 | 1:15                | 1.61 | 13:39 | 1.72 |
| ☉ 20           | 8:00              | 3.51 | 20:36 | 3.43 | 1:56                | 1.83 | 14:23 | 1.93 |
| 21             | 8:59              | 3.29 | 21:52 | 3.30 | 2:51                | 2.03 | 15:26 | 2.11 |
| 22             | 10:37             | 3.18 | 23:30 | 3.34 | 4:11                | 2.15 | 16:55 | 2.16 |
| 23             |                   |      | 12:18 | 3.29 | 5:44                | 2.07 | 18:20 | 2.03 |
| 24             | 0:46              | 3.56 | 13:23 | 3.54 | 6:57                | 1.83 | 19:20 | 1.78 |
| 25             | 1:40              | 3.87 | 14:11 | 3.85 | 7:50                | 1.50 | 20:07 | 1.47 |
| 26             | 2:25              | 4.20 | 14:52 | 4.15 | 8:33                | 1.16 | 20:49 | 1.17 |
| 27             | 3:05              | 4.52 | 15:30 | 4.41 | 9:13                | 0.86 | 21:28 | 0.90 |
| ☉ 28           | 3:45              | 4.77 | 16:09 | 4.59 | 9:53                | 0.63 | 22:08 | 0.70 |

☉ **Ilgora**  
Cuarto creciente

○ **Ilbetea**  
Luna llena

☾ **Ilbehera**  
Cuarto menguante

● **Ilberria**  
Luna nueva

# Martxoa/Marzo 2025

Bilbo/Bilbao

43° 23' N 03° 05' W

m Altuera/Altura

Ordu ofiziala/Hora oficial: GMT +1 (\*+2) ☺ Ordua/Hora (GMT)

| Egunak<br>Días | Itsasgora/Pleamar |      |       |      | Itsasbehera/Bajamar |      |       |      |
|----------------|-------------------|------|-------|------|---------------------|------|-------|------|
|                | ☺                 | m    | ☺     | m    | ☺                   | m    | ☺     | m    |
| 1              | 4:24              | 4.93 | 16:47 | 4.68 | 10:33               | 0.51 | 22:48 | 0.61 |
| 2              | 5:04              | 4.96 | 17:26 | 4.65 | 11:13               | 0.52 | 23:29 | 0.63 |
| 3              | 5:46              | 4.85 | 18:07 | 4.51 | 11:55               | 0.66 |       |      |
| 4              | 6:30              | 4.61 | 18:50 | 4.28 | 0:13                | 0.78 | 12:39 | 0.91 |
| 5              | 7:18              | 4.28 | 19:40 | 4.00 | 1:00                | 1.04 | 13:27 | 1.25 |
| ○ 6            | 8:16              | 3.90 | 20:43 | 3.71 | 1:55                | 1.35 | 14:24 | 1.60 |
| 7              | 9:36              | 3.57 | 22:16 | 3.52 | 3:03                | 1.65 | 15:37 | 1.89 |
| 8              | 11:20             | 3.44 | 23:58 | 3.57 | 4:34                | 1.83 | 17:09 | 2.00 |
| 9              |                   |      | 12:47 | 3.54 | 6:10                | 1.77 | 18:35 | 1.90 |
| 10             | 1:12              | 3.78 | 13:47 | 3.74 | 7:22                | 1.57 | 19:36 | 1.69 |
| 11             | 2:04              | 4.02 | 14:31 | 3.93 | 8:12                | 1.35 | 20:21 | 1.46 |
| 12             | 2:45              | 4.23 | 15:07 | 4.09 | 8:52                | 1.17 | 20:58 | 1.26 |
| 13             | 3:19              | 4.38 | 15:37 | 4.21 | 9:26                | 1.04 | 21:31 | 1.11 |
| ○ 14           | 3:49              | 4.46 | 16:05 | 4.29 | 9:56                | 0.97 | 22:02 | 1.01 |
| 15             | 4:17              | 4.49 | 16:32 | 4.33 | 10:26               | 0.95 | 22:33 | 0.98 |
| 16             | 4:45              | 4.45 | 16:59 | 4.31 | 10:55               | 1.00 | 23:03 | 1.03 |
| 17             | 5:12              | 4.35 | 17:27 | 4.24 | 11:23               | 1.10 | 23:33 | 1.15 |
| 18             | 5:40              | 4.20 | 17:56 | 4.10 | 11:52               | 1.26 |       |      |
| 19             | 6:09              | 4.00 | 18:27 | 3.92 | 0:04                | 1.32 | 12:22 | 1.45 |
| 20             | 6:41              | 3.77 | 19:03 | 3.72 | 0:37                | 1.53 | 12:55 | 1.68 |
| 21             | 7:19              | 3.53 | 19:48 | 3.50 | 1:16                | 1.76 | 13:35 | 1.91 |
| ○ 22           | 8:15              | 3.29 | 21:00 | 3.33 | 2:09                | 1.97 | 14:36 | 2.12 |
| 23             | 9:55              | 3.15 | 22:47 | 3.34 | 3:27                | 2.11 | 16:09 | 2.21 |
| 24             | 11:47             | 3.27 |       |      | 5:06                | 2.04 | 17:43 | 2.07 |
| 25             | 0:12              | 3.57 | 12:55 | 3.56 | 6:25                | 1.78 | 18:49 | 1.78 |
| 26             | 1:10              | 3.91 | 13:43 | 3.91 | 7:20                | 1.43 | 19:39 | 1.42 |
| 27             | 1:57              | 4.28 | 14:25 | 4.24 | 8:05                | 1.07 | 20:22 | 1.07 |
| 28             | 2:39              | 4.61 | 15:04 | 4.52 | 8:47                | 0.76 | 21:03 | 0.77 |
| ○ 29           | 3:20              | 4.87 | 15:43 | 4.72 | 9:27                | 0.54 | 21:44 | 0.56 |
| 30*            | 4:01              | 5.00 | 16:23 | 4.80 | 10:08               | 0.45 | 22:26 | 0.48 |
| 31*            | 4:43              | 4.99 | 17:03 | 4.76 | 10:49               | 0.49 | 23:09 | 0.54 |

# Apirila/Abril 2025

Bilbo/Bilbao

43° 23' N 03° 05' W

Ordu ofiziala/Hora oficial: GMT +2

m Altuera/Altura

☉ Ordua/Hora (GMT)

| Egunak<br>Días | Itsasgora/Pleamar |      |       |      | Itsasbehera/Bajamar |      |       |      |
|----------------|-------------------|------|-------|------|---------------------|------|-------|------|
|                | ☉                 | m    | ☾     | m    | ☉                   | m    | ☾     | m    |
| 1              | 5:26              | 4.83 | 17:44 | 4.60 | 11:32               | 0.67 | 23:54 | 0.72 |
| 2              | 6:11              | 4.54 | 18:29 | 4.34 |                     |      | 12:17 | 0.97 |
| 3              | 7:01              | 4.17 | 19:20 | 4.03 | 0:43                | 1.02 | 13:06 | 1.32 |
| 4              | 8:02              | 3.78 | 20:27 | 3.72 | 1:40                | 1.36 | 14:04 | 1.69 |
| ☉ 5            | 9:26              | 3.48 | 22:02 | 3.54 | 2:52                | 1.67 | 15:19 | 1.96 |
| 6              | 11:09             | 3.39 | 23:40 | 3.59 | 4:24                | 1.82 | 16:52 | 2.05 |
| 7              |                   |      | 12:30 | 3.51 | 5:55                | 1.76 | 18:15 | 1.93 |
| 8              | 0:50              | 3.77 | 13:25 | 3.70 | 7:01                | 1.59 | 19:13 | 1.72 |
| 9              | 1:40              | 3.97 | 14:05 | 3.88 | 7:47                | 1.41 | 19:55 | 1.50 |
| 10             | 2:18              | 4.13 | 14:38 | 4.04 | 8:24                | 1.26 | 20:31 | 1.32 |
| 11             | 2:50              | 4.25 | 15:06 | 4.17 | 8:55                | 1.15 | 21:03 | 1.17 |
| 12             | 3:19              | 4.33 | 15:33 | 4.27 | 9:25                | 1.08 | 21:34 | 1.08 |
| ☉ 13           | 3:47              | 4.35 | 16:01 | 4.32 | 9:54                | 1.05 | 22:04 | 1.05 |
| 14             | 4:14              | 4.32 | 16:28 | 4.32 | 10:22               | 1.08 | 22:34 | 1.09 |
| 15             | 4:42              | 4.24 | 16:57 | 4.25 | 10:51               | 1.17 | 23:05 | 1.18 |
| 16             | 5:11              | 4.11 | 17:28 | 4.13 | 11:20               | 1.30 | 23:37 | 1.33 |
| 17             | 5:42              | 3.94 | 18:00 | 3.97 | 11:51               | 1.48 |       |      |
| 18             | 6:17              | 3.74 | 18:38 | 3.78 | 0:13                | 1.50 | 12:26 | 1.68 |
| 19             | 6:59              | 3.52 | 19:26 | 3.60 | 0:54                | 1.69 | 13:10 | 1.88 |
| 20             | 7:59              | 3.33 | 20:36 | 3.46 | 1:49                | 1.86 | 14:12 | 2.06 |
| ☉ 21           | 9:32              | 3.24 | 22:09 | 3.48 | 3:04                | 1.96 | 15:36 | 2.12 |
| 22             | 11:09             | 3.36 | 23:31 | 3.67 | 4:30                | 1.89 | 17:03 | 1.99 |
| 23             |                   |      | 12:17 | 3.63 | 5:45                | 1.66 | 18:10 | 1.71 |
| 24             | 0:33              | 3.98 | 13:09 | 3.96 | 6:43                | 1.35 | 19:04 | 1.37 |
| 25             | 1:24              | 4.31 | 13:53 | 4.27 | 7:32                | 1.03 | 19:52 | 1.03 |
| 26             | 2:10              | 4.60 | 14:36 | 4.53 | 8:17                | 0.77 | 20:37 | 0.75 |
| ☉ 27           | 2:55              | 4.80 | 15:18 | 4.71 | 9:00                | 0.60 | 21:21 | 0.57 |
| 28             | 3:39              | 4.89 | 15:59 | 4.78 | 9:44                | 0.55 | 22:06 | 0.51 |
| 29             | 4:23              | 4.84 | 16:42 | 4.74 | 10:27               | 0.62 | 22:52 | 0.59 |
| 30             | 5:09              | 4.66 | 17:27 | 4.58 | 11:12               | 0.81 | 23:40 | 0.78 |

# Maiatza/Mayo 2025

Bilbo/Bilbao

43° 23' N 03° 05' W

Ordu ofiziala/Hora oficial: GMT +2

m Altuera/Altura

☉ Ordua/Hora (GMT)

| Egunak<br>Días | Itsasgora/Pleamar |      |       |      | Itsasbehera/Bajamar |      |       |      |
|----------------|-------------------|------|-------|------|---------------------|------|-------|------|
|                | ☉                 | m    | ☉     | m    | ☉                   | m    | ☉     | m    |
| 1              | 5:57              | 4.38 | 18:14 | 4.35 | 11:59               | 1.08 |       |      |
| 2              | 6:50              | 4.05 | 19:09 | 4.07 | 0:32                | 1.05 | 12:50 | 1.39 |
| 3              | 7:53              | 3.73 | 20:15 | 3.81 | 1:31                | 1.35 | 13:48 | 1.69 |
| ○ 4            | 9:11              | 3.50 | 21:38 | 3.65 | 2:41                | 1.61 | 14:59 | 1.91 |
| 5              | 10:37             | 3.43 | 23:03 | 3.64 | 4:01                | 1.74 | 16:20 | 1.99 |
| 6              | 11:50             | 3.50 |       |      | 5:19                | 1.73 | 17:35 | 1.91 |
| 7              | 0:10              | 3.73 | 12:44 | 3.64 | 6:21                | 1.64 | 18:33 | 1.76 |
| 8              | 1:01              | 3.85 | 13:26 | 3.79 | 7:08                | 1.52 | 19:18 | 1.60 |
| 9              | 1:41              | 3.96 | 14:00 | 3.93 | 7:46                | 1.41 | 19:57 | 1.44 |
| 10             | 2:15              | 4.05 | 14:31 | 4.06 | 8:19                | 1.32 | 20:31 | 1.32 |
| 11             | 2:46              | 4.11 | 15:01 | 4.17 | 8:51                | 1.25 | 21:04 | 1.23 |
| ○ 12           | 3:16              | 4.14 | 15:31 | 4.23 | 9:22                | 1.21 | 21:37 | 1.19 |
| 13             | 3:47              | 4.14 | 16:02 | 4.24 | 9:53                | 1.22 | 22:10 | 1.20 |
| 14             | 4:18              | 4.09 | 16:35 | 4.21 | 10:24               | 1.27 | 22:44 | 1.26 |
| 15             | 4:51              | 4.00 | 17:09 | 4.12 | 10:57               | 1.37 | 23:20 | 1.34 |
| 16             | 5:27              | 3.88 | 17:45 | 4.01 | 11:32               | 1.50 | 23:59 | 1.46 |
| 17             | 6:07              | 3.73 | 18:27 | 3.89 |                     |      | 12:12 | 1.64 |
| 18             | 6:54              | 3.59 | 19:17 | 3.77 | 0:45                | 1.57 | 12:59 | 1.78 |
| 19             | 7:54              | 3.47 | 20:20 | 3.69 | 1:39                | 1.67 | 13:58 | 1.89 |
| ○ 20           | 9:09              | 3.43 | 21:35 | 3.70 | 2:44                | 1.72 | 15:08 | 1.92 |
| 21             | 10:26             | 3.52 | 22:49 | 3.82 | 3:55                | 1.67 | 16:22 | 1.82 |
| 22             | 11:34             | 3.71 | 23:54 | 4.03 | 5:04                | 1.53 | 17:30 | 1.62 |
| 23             |                   |      | 12:31 | 3.96 | 6:04                | 1.32 | 18:29 | 1.36 |
| 24             | 0:51              | 4.25 | 13:22 | 4.21 | 6:58                | 1.11 | 19:23 | 1.09 |
| 25             | 1:43              | 4.46 | 14:10 | 4.43 | 7:48                | 0.93 | 20:13 | 0.87 |
| 26             | 2:33              | 4.59 | 14:56 | 4.59 | 8:36                | 0.81 | 21:02 | 0.72 |
| ○ 27           | 3:21              | 4.64 | 15:41 | 4.66 | 9:23                | 0.77 | 21:51 | 0.67 |
| 28             | 4:09              | 4.59 | 16:28 | 4.64 | 10:09               | 0.83 | 22:40 | 0.72 |
| 29             | 4:57              | 4.45 | 17:15 | 4.54 | 10:56               | 0.96 | 23:30 | 0.85 |
| 30             | 5:47              | 4.25 | 18:04 | 4.37 | 11:44               | 1.15 |       |      |
| 31             | 6:39              | 4.01 | 18:57 | 4.16 | 0:22                | 1.06 | 12:35 | 1.37 |

# Ekaina/Junio 2025

Bilbo/Bilbao

43° 23' N 03° 05' W

Ordu ofiziala/Hora oficial: GMT +2

m Altuera/Altura

☉ Ordua/Hora (GMT)

| Egunak<br>Días | Itsasgora/Pleamar |      |       |      | Itsasbehera/Bajamar |      |       |      |
|----------------|-------------------|------|-------|------|---------------------|------|-------|------|
|                | ☉                 | m    | ☾     | m    | ☉                   | m    | ☾     | m    |
| 1              | 7:36              | 3.78 | 19:55 | 3.96 | 1:18                | 1.28 | 13:30 | 1.59 |
| 2              | 8:39              | 3.59 | 20:59 | 3.79 | 2:18                | 1.49 | 14:30 | 1.77 |
| ☉ 3            | 9:46              | 3.49 | 22:08 | 3.68 | 3:22                | 1.65 | 15:35 | 1.87 |
| 4              | 10:51             | 3.49 | 23:12 | 3.66 | 4:26                | 1.72 | 16:40 | 1.89 |
| 5              | 11:48             | 3.55 |       |      | 5:26                | 1.73 | 17:41 | 1.84 |
| 6              | 0:08              | 3.68 | 12:36 | 3.65 | 6:17                | 1.69 | 18:33 | 1.74 |
| 7              | 0:55              | 3.73 | 13:18 | 3.78 | 7:01                | 1.61 | 19:18 | 1.63 |
| 8              | 1:36              | 3.80 | 13:55 | 3.90 | 7:41                | 1.53 | 19:59 | 1.52 |
| 9              | 2:13              | 3.87 | 14:31 | 4.02 | 8:18                | 1.45 | 20:38 | 1.42 |
| 10             | 2:49              | 3.92 | 15:07 | 4.11 | 8:54                | 1.39 | 21:15 | 1.34 |
| ☉ 11           | 3:26              | 3.96 | 15:43 | 4.17 | 9:30                | 1.36 | 21:52 | 1.29 |
| 12             | 4:02              | 3.98 | 16:19 | 4.19 | 10:05               | 1.35 | 22:30 | 1.27 |
| 13             | 4:40              | 3.96 | 16:57 | 4.18 | 10:42               | 1.38 | 23:08 | 1.28 |
| 14             | 5:20              | 3.92 | 17:36 | 4.15 | 11:21               | 1.43 | 23:50 | 1.30 |
| 15             | 6:02              | 3.85 | 18:19 | 4.09 |                     |      | 12:03 | 1.49 |
| 16             | 6:48              | 3.77 | 19:06 | 4.03 | 0:35                | 1.35 | 12:49 | 1.57 |
| 17             | 7:40              | 3.70 | 20:01 | 3.96 | 1:24                | 1.41 | 13:41 | 1.63 |
| ☉ 18           | 8:39              | 3.66 | 21:03 | 3.92 | 2:20                | 1.46 | 14:40 | 1.67 |
| 19             | 9:45              | 3.67 | 22:10 | 3.93 | 3:21                | 1.49 | 15:45 | 1.65 |
| 20             | 10:52             | 3.74 | 23:19 | 3.99 | 4:25                | 1.47 | 16:53 | 1.57 |
| 21             | 11:57             | 3.89 |       |      | 5:29                | 1.40 | 17:58 | 1.42 |
| 22             | 0:24              | 4.09 | 12:56 | 4.07 | 6:29                | 1.30 | 19:00 | 1.24 |
| 23             | 1:24              | 4.21 | 13:51 | 4.25 | 7:26                | 1.18 | 19:57 | 1.06 |
| 24             | 2:19              | 4.31 | 14:42 | 4.41 | 8:19                | 1.08 | 20:51 | 0.91 |
| ☉ 25           | 3:11              | 4.37 | 15:31 | 4.52 | 9:09                | 1.02 | 21:42 | 0.83 |
| 26             | 4:01              | 4.37 | 16:18 | 4.57 | 9:57                | 1.00 | 22:31 | 0.82 |
| 27             | 4:48              | 4.31 | 17:05 | 4.54 | 10:44               | 1.04 | 23:19 | 0.89 |
| 28             | 5:35              | 4.20 | 17:50 | 4.44 | 11:30               | 1.14 |       |      |
| 29             | 6:21              | 4.06 | 18:36 | 4.29 | 0:07                | 1.02 | 12:16 | 1.27 |
| 30             | 7:07              | 3.89 | 19:23 | 4.10 | 0:55                | 1.19 | 13:02 | 1.43 |

# Uztaila/Julio 2025

Bilbo/Bilbao

43° 23' N 03° 05' W

Ordu ofiziala/Hora oficial: GMT +2

m Altuera/Altura

☉ Ordua/Hora (GMT)

| Egunak<br>Días | Itsasgora/Pleamar |      |       |      | Itsasbehera/Bajamar |      |       |      |
|----------------|-------------------|------|-------|------|---------------------|------|-------|------|
|                | ☉                 | m    | ☾     | m    | ☉                   | m    | ☾     | m    |
| 1              | 7:55              | 3.73 | 20:11 | 3.90 | 1:43                | 1.38 | 13:51 | 1.59 |
| ☉ 2            | 8:45              | 3.60 | 21:04 | 3.72 | 2:33                | 1.57 | 14:43 | 1.75 |
| 3              | 9:40              | 3.51 | 22:02 | 3.58 | 3:26                | 1.72 | 15:40 | 1.86 |
| 4              | 10:39             | 3.47 | 23:03 | 3.50 | 4:21                | 1.82 | 16:41 | 1.92 |
| 5              | 11:39             | 3.51 |       |      | 5:19                | 1.86 | 17:42 | 1.91 |
| 6              | 0:04              | 3.50 | 12:34 | 3.60 | 6:14                | 1.83 | 18:40 | 1.84 |
| 7              | 0:58              | 3.55 | 13:23 | 3.73 | 7:04                | 1.76 | 19:31 | 1.72 |
| 8              | 1:46              | 3.65 | 14:07 | 3.88 | 7:50                | 1.65 | 20:16 | 1.57 |
| 9              | 2:30              | 3.77 | 14:48 | 4.02 | 8:32                | 1.53 | 20:58 | 1.42 |
| ☉ 10           | 3:11              | 3.88 | 15:27 | 4.16 | 9:12                | 1.42 | 21:37 | 1.28 |
| 11             | 3:50              | 3.99 | 16:06 | 4.27 | 9:50                | 1.33 | 22:16 | 1.17 |
| 12             | 4:29              | 4.06 | 16:44 | 4.35 | 10:28               | 1.26 | 22:55 | 1.09 |
| 13             | 5:08              | 4.10 | 17:23 | 4.39 | 11:07               | 1.23 | 23:35 | 1.05 |
| 14             | 5:48              | 4.09 | 18:04 | 4.38 | 11:48               | 1.23 |       |      |
| 15             | 6:30              | 4.05 | 18:48 | 4.32 | 0:17                | 1.07 | 12:31 | 1.27 |
| 16             | 7:16              | 3.96 | 19:36 | 4.20 | 1:02                | 1.14 | 13:18 | 1.35 |
| 17             | 8:07              | 3.86 | 20:32 | 4.06 | 1:52                | 1.26 | 14:11 | 1.45 |
| ☉ 18           | 9:06              | 3.77 | 21:37 | 3.92 | 2:47                | 1.40 | 15:12 | 1.55 |
| 19             | 10:15             | 3.72 | 22:52 | 3.84 | 3:50                | 1.52 | 16:22 | 1.59 |
| 20             | 11:30             | 3.76 |       |      | 4:59                | 1.58 | 17:37 | 1.55 |
| 21             | 0:08              | 3.86 | 12:41 | 3.90 | 6:09                | 1.55 | 18:48 | 1.42 |
| 22             | 1:16              | 3.95 | 13:43 | 4.09 | 7:13                | 1.45 | 19:51 | 1.24 |
| 23             | 2:16              | 4.07 | 14:37 | 4.29 | 8:10                | 1.31 | 20:46 | 1.06 |
| ☉ 24           | 3:07              | 4.19 | 15:25 | 4.45 | 9:00                | 1.18 | 21:35 | 0.93 |
| 25             | 3:53              | 4.26 | 16:09 | 4.55 | 9:46                | 1.08 | 22:20 | 0.87 |
| 26             | 4:35              | 4.28 | 16:50 | 4.57 | 10:29               | 1.04 | 23:02 | 0.88 |
| 27             | 5:15              | 4.24 | 17:29 | 4.51 | 11:10               | 1.05 | 23:43 | 0.97 |
| 28             | 5:52              | 4.16 | 18:06 | 4.38 | 11:49               | 1.13 |       |      |
| 29             | 6:29              | 4.04 | 18:43 | 4.20 | 0:22                | 1.12 | 12:29 | 1.26 |
| 30             | 7:06              | 3.89 | 19:21 | 3.98 | 1:01                | 1.31 | 13:09 | 1.44 |
| 31             | 7:45              | 3.73 | 20:02 | 3.75 | 1:41                | 1.51 | 13:51 | 1.64 |



# Abuztua/Agosto 2025

Bilbo/Bilbao

43° 23' N 03° 05' W

Ordu ofiziala/Hora oficial: GMT +2

m Altuera/Altura

☉ Ordua/Hora (GMT)

| Egunak<br>Días | Itsasgora/Pleamar |      |       |      | Itsasbehera/Bajamar |      |       |      |
|----------------|-------------------|------|-------|------|---------------------|------|-------|------|
|                | ☉                 | m    | ☉     | m    | ☉                   | m    | ☉     | m    |
| ☉ 1            | 8:30              | 3.57 | 20:50 | 3.53 | 2:24                | 1.72 | 14:39 | 1.83 |
| 2              | 9:26              | 3.44 | 21:52 | 3.36 | 3:14                | 1.90 | 15:38 | 1.99 |
| 3              | 10:37             | 3.38 | 23:11 | 3.29 | 4:16                | 2.02 | 16:49 | 2.06 |
| 4              | 11:52             | 3.43 |       |      | 5:26                | 2.04 | 18:04 | 2.01 |
| 5              | 0:28              | 3.35 | 12:56 | 3.58 | 6:33                | 1.95 | 19:07 | 1.85 |
| 6              | 1:27              | 3.51 | 13:47 | 3.79 | 7:28                | 1.79 | 19:57 | 1.63 |
| 7              | 2:14              | 3.71 | 14:30 | 4.02 | 8:14                | 1.59 | 20:40 | 1.39 |
| 8              | 2:55              | 3.92 | 15:10 | 4.25 | 8:54                | 1.39 | 21:19 | 1.16 |
| ☉ 9            | 3:34              | 4.12 | 15:47 | 4.45 | 9:32                | 1.20 | 21:56 | 0.97 |
| 10             | 4:11              | 4.27 | 16:25 | 4.59 | 10:09               | 1.05 | 22:34 | 0.83 |
| 11             | 4:48              | 4.36 | 17:03 | 4.67 | 10:47               | 0.95 | 23:13 | 0.78 |
| 12             | 5:26              | 4.38 | 17:43 | 4.65 | 11:27               | 0.93 | 23:53 | 0.82 |
| 13             | 6:05              | 4.32 | 18:25 | 4.53 |                     |      | 12:08 | 0.98 |
| 14             | 6:48              | 4.19 | 19:11 | 4.33 | 0:36                | 0.96 | 12:54 | 1.12 |
| 15             | 7:35              | 4.01 | 20:05 | 4.07 | 1:24                | 1.17 | 13:45 | 1.31 |
| ☉ 16           | 8:33              | 3.81 | 21:12 | 3.81 | 2:17                | 1.42 | 14:47 | 1.52 |
| 17             | 9:48              | 3.65 | 22:38 | 3.64 | 3:22                | 1.65 | 16:03 | 1.68 |
| 18             | 11:18             | 3.64 |       |      | 4:39                | 1.79 | 17:29 | 1.68 |
| 19             | 0:07              | 3.65 | 12:39 | 3.79 | 6:01                | 1.77 | 18:49 | 1.53 |
| 20             | 1:19              | 3.79 | 13:42 | 4.03 | 7:10                | 1.62 | 19:51 | 1.31 |
| 21             | 2:15              | 3.97 | 14:32 | 4.26 | 8:05                | 1.42 | 20:41 | 1.11 |
| 22             | 3:00              | 4.13 | 15:15 | 4.44 | 8:51                | 1.23 | 21:24 | 0.96 |
| ☉ 23           | 3:39              | 4.25 | 15:53 | 4.55 | 9:31                | 1.08 | 22:02 | 0.88 |
| 24             | 4:14              | 4.31 | 16:28 | 4.58 | 10:08               | 0.99 | 22:37 | 0.88 |
| 25             | 4:47              | 4.31 | 17:00 | 4.53 | 10:44               | 0.97 | 23:11 | 0.95 |
| 26             | 5:18              | 4.27 | 17:31 | 4.41 | 11:18               | 1.03 | 23:44 | 1.08 |
| 27             | 5:48              | 4.17 | 18:02 | 4.23 | 11:52               | 1.16 |       |      |
| 28             | 6:20              | 4.03 | 18:34 | 4.00 | 0:17                | 1.26 | 12:27 | 1.34 |
| 29             | 6:53              | 3.85 | 19:08 | 3.76 | 0:50                | 1.48 | 13:04 | 1.57 |
| 30             | 7:32              | 3.65 | 19:49 | 3.50 | 1:27                | 1.71 | 13:46 | 1.81 |
| ☉ 31           | 8:22              | 3.45 | 20:47 | 3.28 | 2:11                | 1.94 | 14:40 | 2.02 |

# Iraila/Septiembre 2025

Bilbo/Bilbao

43° 23' N 03° 05' W

Ordu ofiziala/Hora oficial: GMT +2

m Altuera/Altura

☉ Ordua/Hora (GMT)

| Egunak<br>Días | Itsasgora/Pleamar |      |       |      | Itsasbehera/Bajamar |      |       |      |
|----------------|-------------------|------|-------|------|---------------------|------|-------|------|
|                | ☉                 | m    | ☉     | m    | ☉                   | m    | ☉     | m    |
| 1              | 9:36              | 3.30 | 22:23 | 3.15 | 3:13                | 2.12 | 15:58 | 2.15 |
| 2              | 11:13             | 3.32 |       |      | 4:40                | 2.19 | 17:31 | 2.10 |
| 3              | 0:04              | 3.24 | 12:30 | 3.50 | 6:05                | 2.08 | 18:43 | 1.89 |
| 4              | 1:08              | 3.47 | 13:23 | 3.78 | 7:05                | 1.85 | 19:34 | 1.60 |
| 5              | 1:54              | 3.75 | 14:06 | 4.09 | 7:50                | 1.58 | 20:15 | 1.29 |
| 6              | 2:33              | 4.04 | 14:45 | 4.38 | 8:30                | 1.29 | 20:53 | 1.00 |
| ☉ 7            | 3:09              | 4.29 | 15:23 | 4.63 | 9:07                | 1.02 | 21:30 | 0.76 |
| 8              | 3:46              | 4.49 | 16:00 | 4.80 | 9:45                | 0.82 | 22:08 | 0.62 |
| 9              | 4:22              | 4.60 | 16:39 | 4.87 | 10:23               | 0.69 | 22:47 | 0.59 |
| 10             | 5:00              | 4.61 | 17:19 | 4.81 | 11:03               | 0.68 | 23:28 | 0.68 |
| 11             | 5:39              | 4.52 | 18:02 | 4.62 | 11:46               | 0.78 |       |      |
| 12             | 6:21              | 4.34 | 18:49 | 4.33 | 0:11                | 0.88 | 12:32 | 0.98 |
| 13             | 7:09              | 4.08 | 19:44 | 3.98 | 0:58                | 1.18 | 13:25 | 1.26 |
| ☉ 14           | 8:09              | 3.81 | 20:58 | 3.66 | 1:52                | 1.51 | 14:30 | 1.55 |
| 15             | 9:33              | 3.60 | 22:38 | 3.49 | 3:01                | 1.80 | 15:55 | 1.75 |
| 16             | 11:16             | 3.60 |       |      | 4:29                | 1.95 | 17:30 | 1.73 |
| 17             | 0:10              | 3.57 | 12:37 | 3.79 | 5:58                | 1.88 | 18:48 | 1.54 |
| 18             | 1:16              | 3.76 | 13:35 | 4.04 | 7:05                | 1.67 | 19:44 | 1.32 |
| 19             | 2:05              | 3.96 | 14:19 | 4.25 | 7:54                | 1.44 | 20:27 | 1.13 |
| 20             | 2:43              | 4.13 | 14:57 | 4.41 | 8:35                | 1.23 | 21:03 | 1.00 |
| ☉ 21           | 3:17              | 4.25 | 15:30 | 4.50 | 9:10                | 1.07 | 21:36 | 0.93 |
| 22             | 3:47              | 4.33 | 16:00 | 4.51 | 9:43                | 0.98 | 22:07 | 0.93 |
| 23             | 4:15              | 4.35 | 16:28 | 4.46 | 10:15               | 0.95 | 22:37 | 0.99 |
| 24             | 4:43              | 4.33 | 16:56 | 4.35 | 10:47               | 1.01 | 23:07 | 1.10 |
| 25             | 5:11              | 4.25 | 17:25 | 4.18 | 11:18               | 1.13 | 23:36 | 1.27 |
| 26             | 5:41              | 4.11 | 17:55 | 3.97 | 11:50               | 1.31 |       |      |
| 27             | 6:12              | 3.93 | 18:27 | 3.73 | 0:07                | 1.47 | 12:25 | 1.54 |
| 28             | 6:49              | 3.71 | 19:06 | 3.48 | 0:41                | 1.71 | 13:05 | 1.78 |
| 29             | 7:35              | 3.49 | 20:03 | 3.24 | 1:22                | 1.95 | 13:57 | 2.00 |
| ☉ 30           | 8:47              | 3.31 | 21:44 | 3.11 | 2:23                | 2.16 | 15:16 | 2.14 |

# Urria/Octubre 2025

Bilbo/Bilbao

43° 23' N 03° 05' W

m Altuera/Altura

Ordu ofiziala/Hora oficial: GMT +2 (\*+1) ☉ Ordua/Hora (GMT)

| Egunak<br>Días | Itsasgora/Pleamar |      |       |      | Itsasbehera/Bajamar |      |       |      |
|----------------|-------------------|------|-------|------|---------------------|------|-------|------|
|                | ☉                 | m    | ☉     | m    | ☉                   | m    | ☉     | m    |
| 1              | 10:32             | 3.31 | 23:33 | 3.23 | 3:56                | 2.25 | 16:54 | 2.08 |
| 2              | 11:55             | 3.51 |       |      | 5:29                | 2.12 | 18:09 | 1.84 |
| 3              | 0:38              | 3.50 | 12:51 | 3.82 | 6:32                | 1.86 | 19:01 | 1.52 |
| 4              | 1:23              | 3.82 | 13:35 | 4.16 | 7:19                | 1.53 | 19:43 | 1.19 |
| 5              | 2:03              | 4.13 | 14:16 | 4.48 | 8:00                | 1.19 | 20:23 | 0.88 |
| 6              | 2:40              | 4.42 | 14:55 | 4.74 | 8:39                | 0.89 | 21:02 | 0.65 |
| ☉ 7            | 3:18              | 4.63 | 15:35 | 4.90 | 9:19                | 0.66 | 21:41 | 0.53 |
| 8              | 3:56              | 4.75 | 16:15 | 4.93 | 9:59                | 0.54 | 22:22 | 0.53 |
| 9              | 4:35              | 4.75 | 16:58 | 4.82 | 10:42               | 0.55 | 23:04 | 0.66 |
| 10             | 5:16              | 4.63 | 17:43 | 4.58 | 11:26               | 0.69 | 23:48 | 0.91 |
| 11             | 6:01              | 4.41 | 18:32 | 4.25 |                     |      | 12:15 | 0.94 |
| 12             | 6:51              | 4.13 | 19:32 | 3.88 | 0:37                | 1.24 | 13:11 | 1.26 |
| ☉ 13           | 7:55              | 3.83 | 20:52 | 3.57 | 1:34                | 1.59 | 14:21 | 1.56 |
| 14             | 9:25              | 3.63 | 22:32 | 3.46 | 2:47                | 1.87 | 15:49 | 1.73 |
| 15             | 11:04             | 3.64 | 23:57 | 3.56 | 4:17                | 1.99 | 17:21 | 1.70 |
| 16             |                   |      | 12:19 | 3.81 | 5:43                | 1.89 | 18:31 | 1.53 |
| 17             | 0:57              | 3.74 | 13:14 | 4.01 | 6:46                | 1.69 | 19:22 | 1.36 |
| 18             | 1:42              | 3.92 | 13:56 | 4.18 | 7:32                | 1.47 | 20:01 | 1.21 |
| 19             | 2:17              | 4.08 | 14:31 | 4.29 | 8:10                | 1.29 | 20:35 | 1.12 |
| 20             | 2:48              | 4.20 | 15:01 | 4.35 | 8:44                | 1.14 | 21:06 | 1.06 |
| ☉ 21           | 3:16              | 4.28 | 15:30 | 4.35 | 9:16                | 1.06 | 21:36 | 1.05 |
| 22             | 3:44              | 4.33 | 15:58 | 4.31 | 9:47                | 1.03 | 22:05 | 1.09 |
| 23             | 4:11              | 4.32 | 16:26 | 4.22 | 10:18               | 1.08 | 22:34 | 1.18 |
| 24             | 4:41              | 4.26 | 16:55 | 4.08 | 10:50               | 1.18 | 23:04 | 1.31 |
| 25             | 5:11              | 4.14 | 17:27 | 3.91 | 11:23               | 1.33 | 23:36 | 1.49 |
| 26*            | 5:44              | 3.97 | 18:01 | 3.70 | 11:58               | 1.52 |       |      |
| 27*            | 6:22              | 3.78 | 18:43 | 3.48 | 0:11                | 1.70 | 12:40 | 1.72 |
| 28*            | 7:09              | 3.58 | 19:41 | 3.29 | 0:53                | 1.91 | 13:33 | 1.90 |
| ☉ 29*          | 8:16              | 3.43 | 21:11 | 3.19 | 1:52                | 2.09 | 14:45 | 2.00 |
| 30*            | 9:46              | 3.42 | 22:47 | 3.29 | 3:14                | 2.17 | 16:09 | 1.96 |
| 31*            | 11:08             | 3.58 | 23:55 | 3.54 | 4:41                | 2.07 | 17:23 | 1.75 |

# Azaroa/Noviembre 2025

Bilbo/Bilbao

43° 23' N 03° 05' W

Ordu ofiziala/Hora oficial: GMT +1

m Altuera/Altura

☉ Ordua/Hora (GMT)

| Egunak<br>Días | Itsasgora/Pleamar |      |       |      | Itsasbehera/Bajamar |      |       |      |
|----------------|-------------------|------|-------|------|---------------------|------|-------|------|
|                | ☉                 | m    | ☉     | m    | ☉                   | m    | ☉     | m    |
| 1              |                   |      | 12:09 | 3.86 | 5:48                | 1.82 | 18:20 | 1.47 |
| 2              | 0:45              | 3.84 | 12:59 | 4.17 | 6:41                | 1.50 | 19:07 | 1.16 |
| 3              | 1:29              | 4.16 | 13:45 | 4.47 | 7:27                | 1.16 | 19:51 | 0.89 |
| 4              | 2:10              | 4.44 | 14:28 | 4.70 | 8:11                | 0.87 | 20:34 | 0.69 |
| ☉ 5            | 2:51              | 4.65 | 15:12 | 4.82 | 8:55                | 0.65 | 21:16 | 0.59 |
| 6              | 3:33              | 4.76 | 15:56 | 4.83 | 9:39                | 0.54 | 22:00 | 0.61 |
| 7              | 4:15              | 4.77 | 16:42 | 4.70 | 10:25               | 0.56 | 22:45 | 0.74 |
| 8              | 5:00              | 4.66 | 17:30 | 4.47 | 11:13               | 0.70 | 23:32 | 0.98 |
| 9              | 5:47              | 4.46 | 18:22 | 4.17 |                     |      | 12:05 | 0.93 |
| 10             | 6:41              | 4.20 | 19:24 | 3.85 | 0:22                | 1.27 | 13:03 | 1.22 |
| 11             | 7:45              | 3.94 | 20:39 | 3.60 | 1:20                | 1.57 | 14:10 | 1.48 |
| ☉ 12           | 9:05              | 3.75 | 22:04 | 3.49 | 2:29                | 1.81 | 15:28 | 1.64 |
| 13             | 10:31             | 3.71 | 23:22 | 3.54 | 3:49                | 1.92 | 16:48 | 1.67 |
| 14             | 11:43             | 3.78 |       |      | 5:06                | 1.88 | 17:55 | 1.60 |
| 15             | 0:21              | 3.66 | 12:39 | 3.88 | 6:10                | 1.75 | 18:47 | 1.50 |
| 16             | 1:07              | 3.81 | 13:23 | 3.98 | 6:59                | 1.59 | 19:28 | 1.40 |
| 17             | 1:44              | 3.94 | 14:00 | 4.06 | 7:40                | 1.44 | 20:03 | 1.32 |
| 18             | 2:17              | 4.06 | 14:32 | 4.10 | 8:16                | 1.32 | 20:36 | 1.26 |
| 19             | 2:47              | 4.16 | 15:03 | 4.12 | 8:50                | 1.23 | 21:07 | 1.23 |
| ☉ 20           | 3:17              | 4.23 | 15:33 | 4.11 | 9:23                | 1.19 | 21:38 | 1.23 |
| 21             | 3:48              | 4.25 | 16:04 | 4.07 | 9:57                | 1.20 | 22:10 | 1.28 |
| 22             | 4:20              | 4.22 | 16:37 | 3.98 | 10:31               | 1.25 | 22:43 | 1.37 |
| 23             | 4:54              | 4.15 | 17:12 | 3.87 | 11:06               | 1.34 | 23:17 | 1.49 |
| 24             | 5:29              | 4.03 | 17:50 | 3.73 | 11:44               | 1.46 | 23:55 | 1.63 |
| 25             | 6:09              | 3.90 | 18:34 | 3.58 |                     |      | 12:26 | 1.58 |
| 26             | 6:55              | 3.77 | 19:27 | 3.46 | 0:38                | 1.78 | 13:16 | 1.69 |
| 27             | 7:52              | 3.67 | 20:35 | 3.39 | 1:31                | 1.90 | 14:16 | 1.76 |
| ☉ 28           | 9:02              | 3.64 | 21:52 | 3.43 | 2:37                | 1.97 | 15:24 | 1.75 |
| 29             | 10:16             | 3.71 | 23:03 | 3.58 | 3:49                | 1.92 | 16:32 | 1.65 |
| 30             | 11:24             | 3.88 |       |      | 4:59                | 1.76 | 17:35 | 1.47 |

# Abendua/Diciembre 2025

Bilbo/Bilbao

43° 23' N 03° 05' W

Ordu ofiziala/Hora oficial: GMT +1

m Altuera/Altura

☉ Ordua/Hora (GMT)

| Egunak<br>Días | Itsasgora/Pleamar |      |       |      | Itsasbehera/Bajamar |      |       |      |
|----------------|-------------------|------|-------|------|---------------------|------|-------|------|
|                | ☉                 | m    | ☉     | m    | ☉                   | m    | ☉     | m    |
| 1              | 0:03              | 3.82 | 12:23 | 4.10 | 6:01                | 1.51 | 18:31 | 1.25 |
| 2              | 0:55              | 4.08 | 13:17 | 4.32 | 6:56                | 1.23 | 19:22 | 1.04 |
| 3              | 1:44              | 4.33 | 14:07 | 4.50 | 7:47                | 0.97 | 20:10 | 0.88 |
| ○ 4            | 2:30              | 4.54 | 14:56 | 4.61 | 8:37                | 0.77 | 20:57 | 0.78 |
| 5              | 3:17              | 4.67 | 15:44 | 4.63 | 9:26                | 0.65 | 21:44 | 0.77 |
| 6              | 4:03              | 4.72 | 16:32 | 4.55 | 10:15               | 0.64 | 22:31 | 0.85 |
| 7              | 4:50              | 4.67 | 17:22 | 4.39 | 11:05               | 0.72 | 23:20 | 1.00 |
| 8              | 5:39              | 4.53 | 18:13 | 4.17 | 11:56               | 0.89 |       |      |
| 9              | 6:31              | 4.34 | 19:08 | 3.93 | 0:10                | 1.20 | 12:51 | 1.11 |
| 10             | 7:27              | 4.12 | 20:09 | 3.72 | 1:03                | 1.43 | 13:49 | 1.34 |
| ○ 11           | 8:29              | 3.91 | 21:15 | 3.57 | 2:01                | 1.64 | 14:51 | 1.54 |
| 12             | 9:38              | 3.75 | 22:24 | 3.51 | 3:05                | 1.79 | 15:57 | 1.68 |
| 13             | 10:48             | 3.67 | 23:27 | 3.53 | 4:12                | 1.87 | 17:01 | 1.73 |
| 14             | 11:50             | 3.67 |       |      | 5:18                | 1.85 | 17:58 | 1.72 |
| 15             | 0:21              | 3.62 | 12:43 | 3.70 | 6:16                | 1.78 | 18:47 | 1.66 |
| 16             | 1:06              | 3.73 | 13:27 | 3.75 | 7:06                | 1.67 | 19:30 | 1.59 |
| 17             | 1:46              | 3.86 | 14:06 | 3.82 | 7:49                | 1.56 | 20:08 | 1.50 |
| 18             | 2:23              | 3.99 | 14:42 | 3.88 | 8:29                | 1.45 | 20:45 | 1.43 |
| 19             | 2:58              | 4.09 | 15:17 | 3.93 | 9:06                | 1.36 | 21:20 | 1.37 |
| ○ 20           | 3:33              | 4.17 | 15:53 | 3.96 | 9:43                | 1.30 | 21:55 | 1.35 |
| 21             | 4:08              | 4.21 | 16:28 | 3.97 | 10:19               | 1.26 | 22:30 | 1.35 |
| 22             | 4:44              | 4.22 | 17:05 | 3.94 | 10:55               | 1.26 | 23:06 | 1.39 |
| 23             | 5:20              | 4.19 | 17:43 | 3.88 | 11:33               | 1.28 | 23:43 | 1.45 |
| 24             | 5:58              | 4.13 | 18:23 | 3.81 |                     |      | 12:13 | 1.33 |
| 25             | 6:40              | 4.06 | 19:08 | 3.73 | 0:24                | 1.53 | 12:57 | 1.40 |
| 26             | 7:27              | 3.97 | 20:00 | 3.65 | 1:10                | 1.61 | 13:46 | 1.47 |
| ○ 27           | 8:22              | 3.89 | 21:00 | 3.61 | 2:02                | 1.68 | 14:42 | 1.54 |
| 28             | 9:27              | 3.84 | 22:09 | 3.63 | 3:04                | 1.72 | 15:45 | 1.57 |
| 29             | 10:39             | 3.85 | 23:20 | 3.74 | 4:13                | 1.69 | 16:52 | 1.54 |
| 30             | 11:51             | 3.94 |       |      | 5:23                | 1.58 | 17:57 | 1.44 |
| 31             | 0:26              | 3.92 | 12:56 | 4.08 | 6:30                | 1.39 | 18:58 | 1.30 |

# ZONA MESOPELAGIKOA

**babesteko 4 arrazoi**



**SARE TROFIKOAK ETA ERRESILIENTZIA:** Itsasoko elikadura-sareak oso sentikorrek dira arrain mesopelagikoen harrapaketaren aurrean. Horiek arrantzatzeak beste espezieetan eragin nabarmena izan dezake, eskualdearen arabera.

**REDES TRÓFICAS Y RESILIENCIA:** Las redes de alimentación marina son muy sensibles a la captura de peces mesopelágicos. Su pesca puede afectar significativamente a otras especies, según la región.



**KARBONO BILTEGIRATZEA ETA KLIMA-ERREGULAZIOA:** 1.300 milioi tona arrain mesopelagikok munduko automobil guztien urteko CO<sub>2</sub> isurien 1,5 aldiz karbono garraiatzeko gai dira.

**ALMACENAMIENTO DE CARBONO Y REGULACIÓN CLIMÁTICA:** Los 1.300 millones de toneladas de peces mesopelágicos son capaces de transportar carbono de una manera equivalente a 1,5 veces las emisiones anuales de CO<sub>2</sub> de todos los automóviles del mundo.

# ZONA MESOPELÁGICA

## 4 razones para protegerla



**BALIO HANDIKO PRODUKTUAK:** Zona mesopelagikoa baliabide ustiatu gabea da oraindik neurri handi batean, eta konposatu bioaktibo bakarrak sortzeko potentzial handia eskaintzen du. Baliabide hori agortzeak etorkizuneko erabilera potentzialak mugatuko lituzke.

**PRODUCTOS DE ALTO VALOR:** La zona mesopelágica es un recurso en gran medida sin explotar, con un gran potencial para obtener compuestos bioactivos únicos. Reducir este recurso en este momento limitaría sus posibles usos futuros.



**KUDEAKETA ETA ZERBITZU EKOSISTEMIKOEN EBALUAZIOA:** Kalkulatzen da batez besteko kostu soziala 19 eurokoa dela harrapatutako arrain mesopelagiko tona bakoitzeko. Horrek ez ditu konpentsatzen klima-erregulazioaren eta biodibertsitatearen kostuak.

**EVALUACIÓN DE GESTIÓN Y SERVICIOS ECOSISTÉMICOS:** El coste social promedio estimado es de 19 euros por tonelada de pescado mesopelágico capturado. Esto no compensa los costes en regulación climática y biodiversidad.

# Zona mesopelagikoa

Zona mesopelagikoa, 200 eta 1.000 metro arteko sakoneran dagoen ia argirik gabeko ozeano-eremua da. Planetaren azaleraren %60 hartzen du eta, kalkuluen arabera, biomasa pelagikoaren %87 baino gehiago biltzen du (1.300 milioi tona arrain mesopelagiko). SUMMER proiektuaren bidez, AZTIk ekosistema zabal eta gutxi aztertu honen baliabideak **babesteko lau arrazoi funtsezko identifikatu ditu**.

# Zona mesopelágica

La zona mesopelágica, situada entre los 200 y 1000 metros de profundidad, es una región oceánica casi sin luz que abarca el 60% de la superficie planetaria y alberga, según estimaciones, más del 87% de la biomasa pelágica (1.300 millones de toneladas de peces pelágicos). A través del proyecto SUMMER, AZTI ha **identificado cuatro razones clave para proteger** los recursos de este vasto y poco explorado ecosistema.

**TXOSTENA DESKARGATU**  
DESCARGA EL INFORME



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