

El ritme de les estacions

El ritme de la vida





Astronòmic



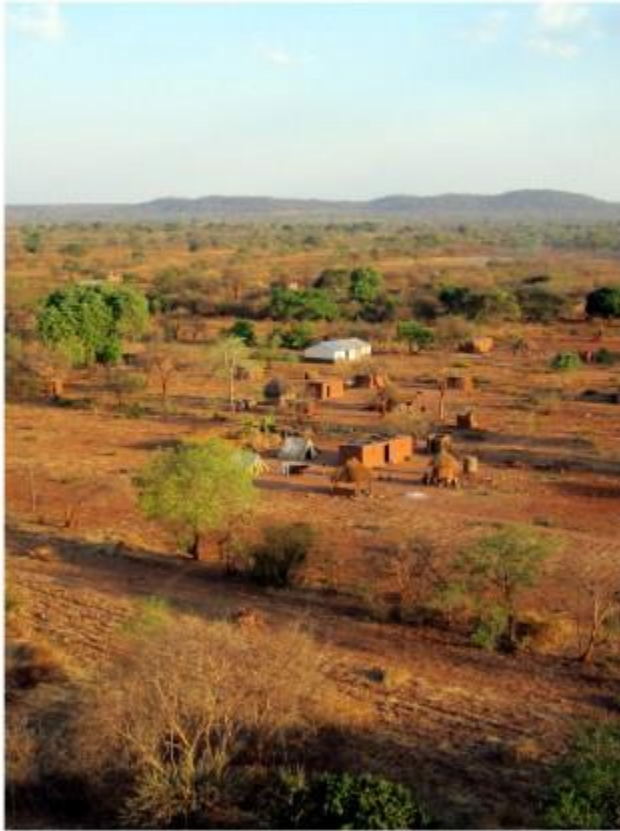
Meteorològic



Fenològic



Seca



Humida



Primavera



Estiu



Monsó



Tardor



Hivern



Prevernal



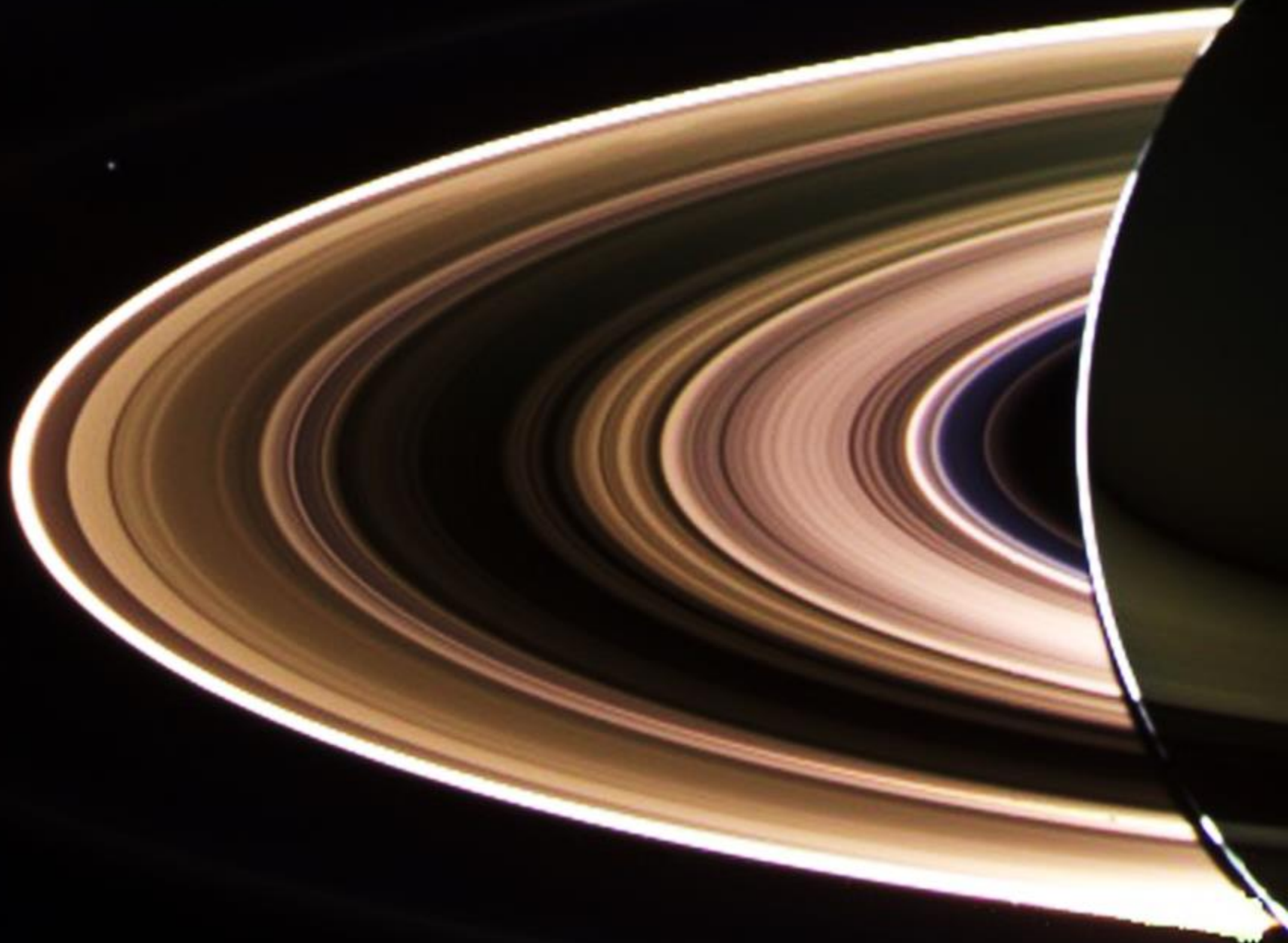
Estiu



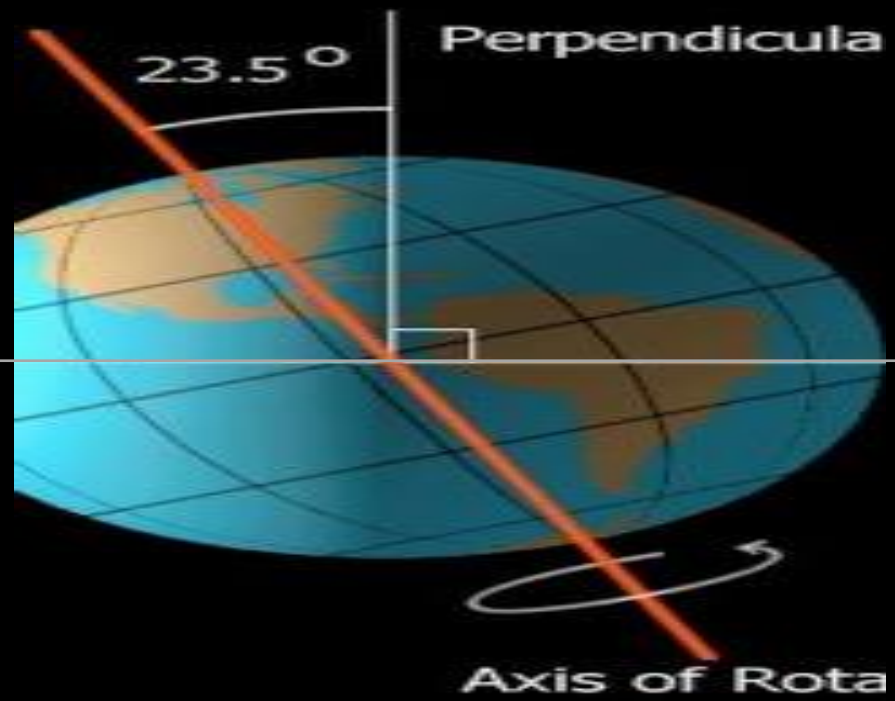
Hivern







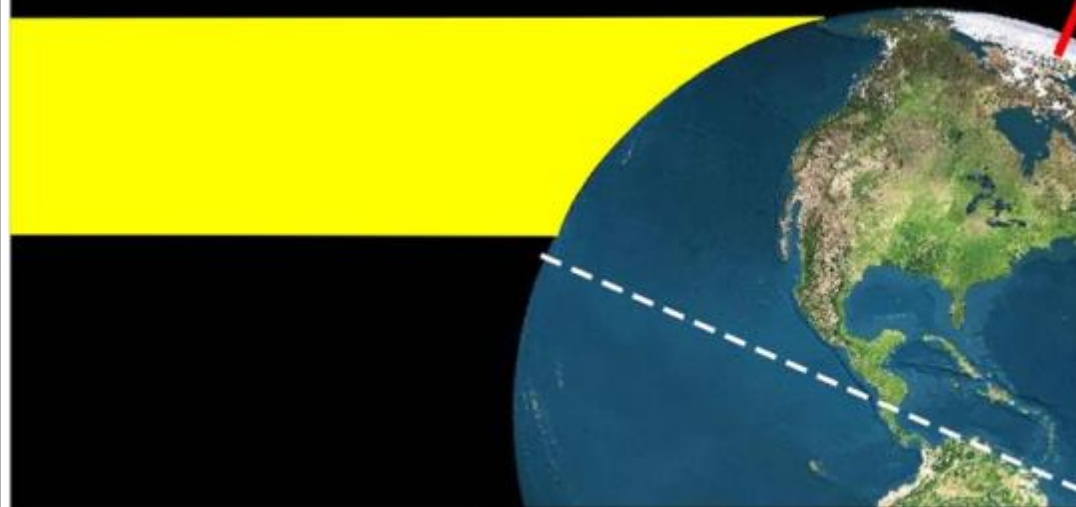


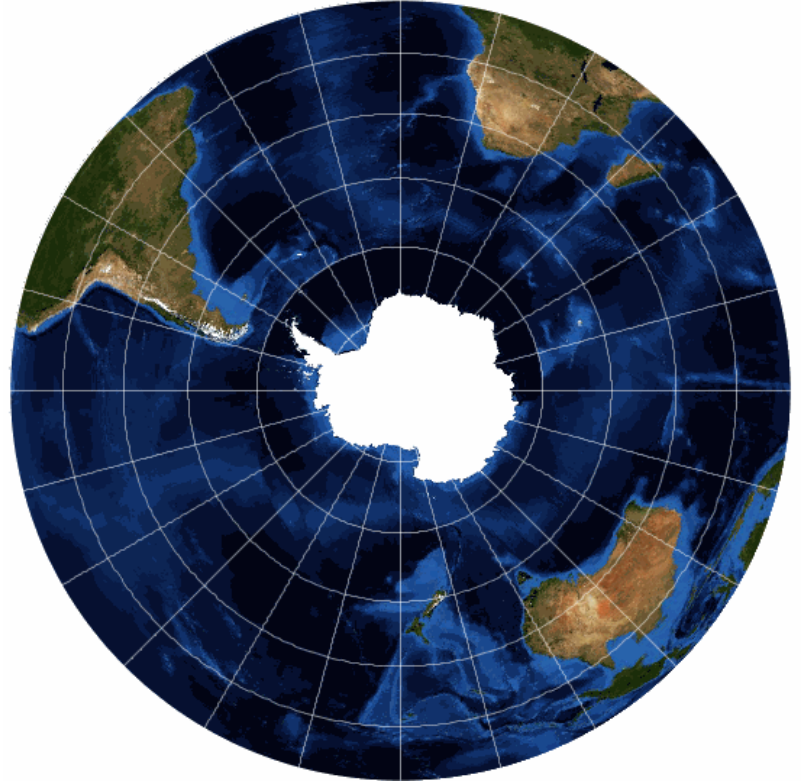
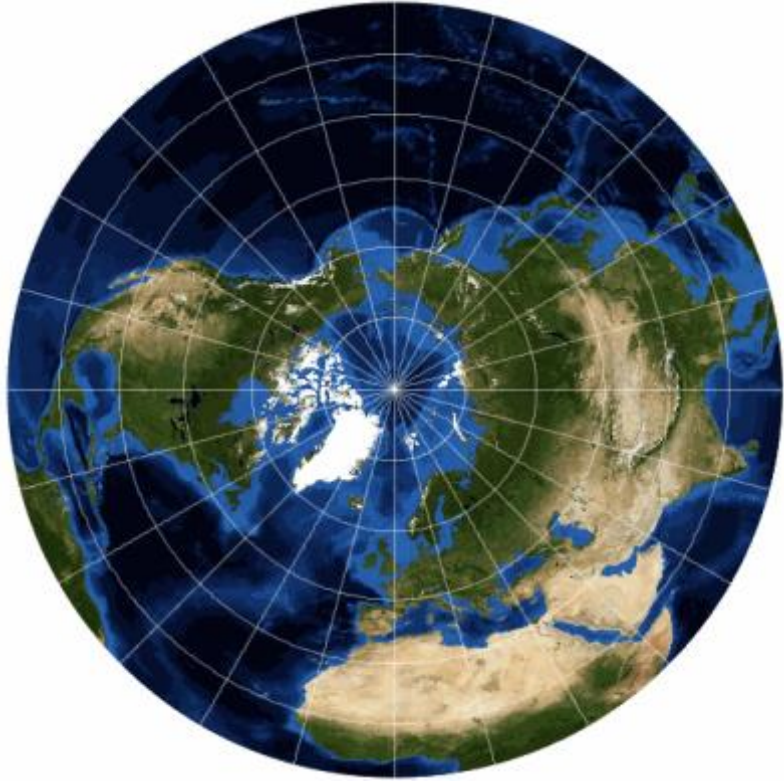


Northern Hemisphere Summer

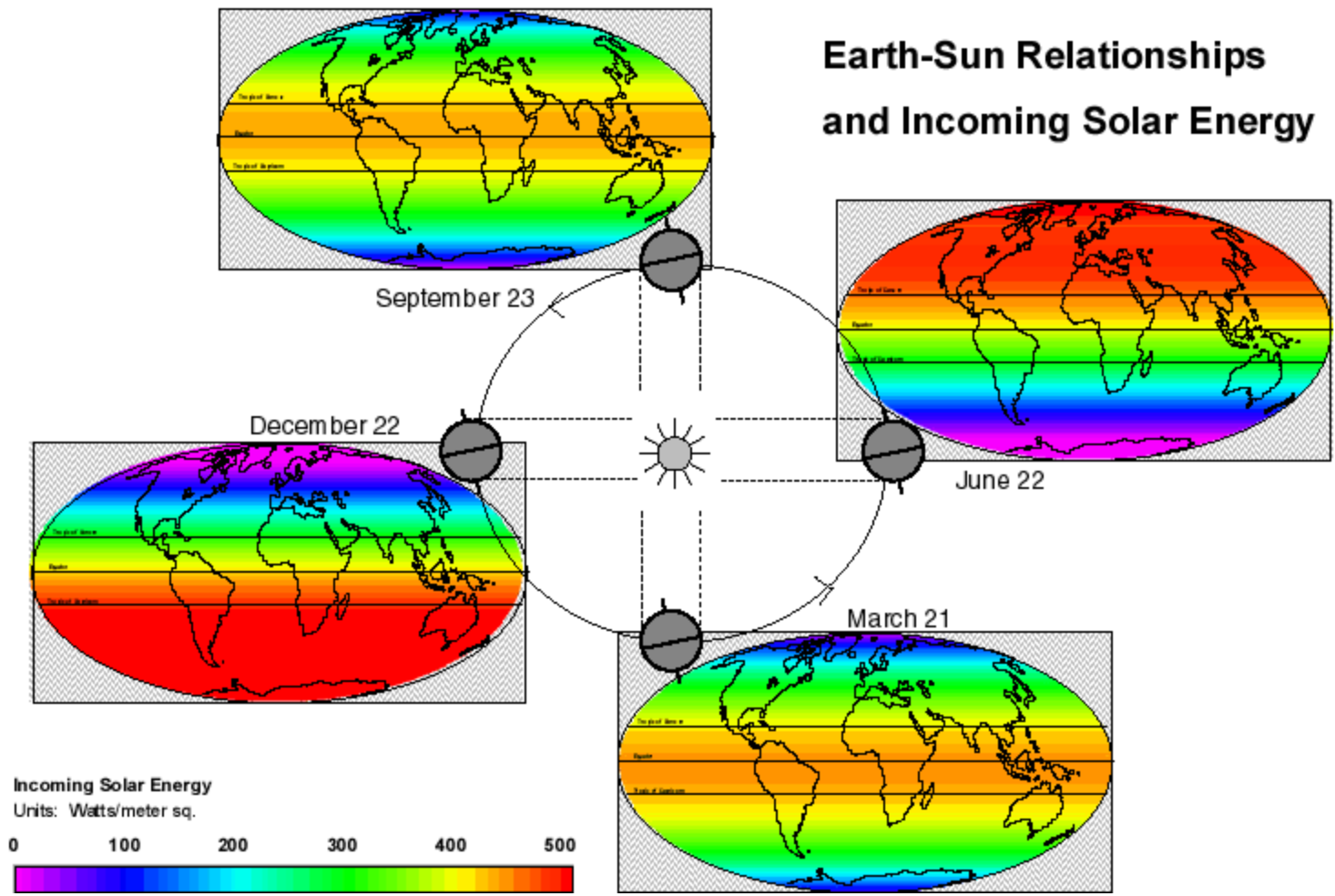


Northern Hemisphere Winter

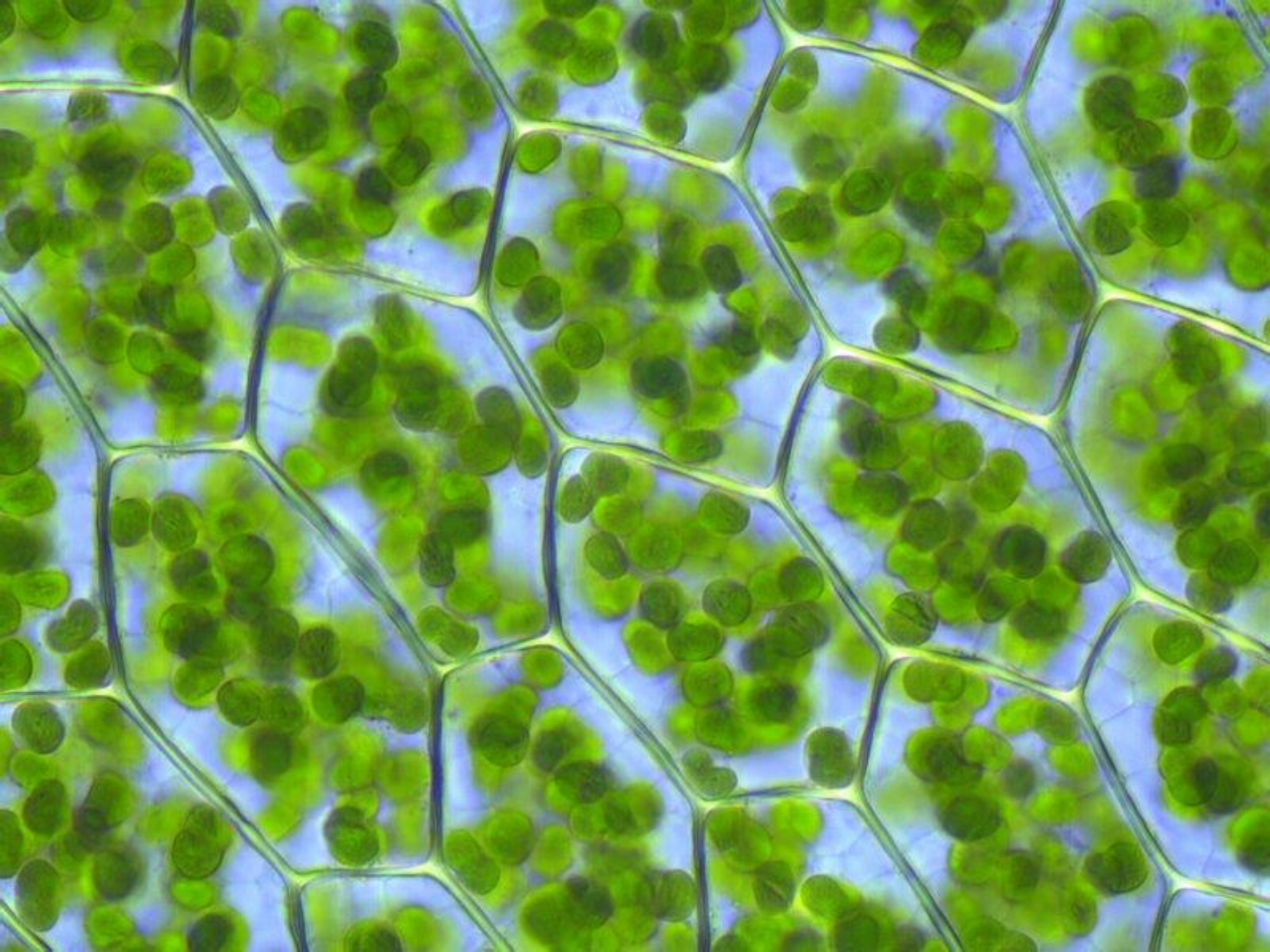


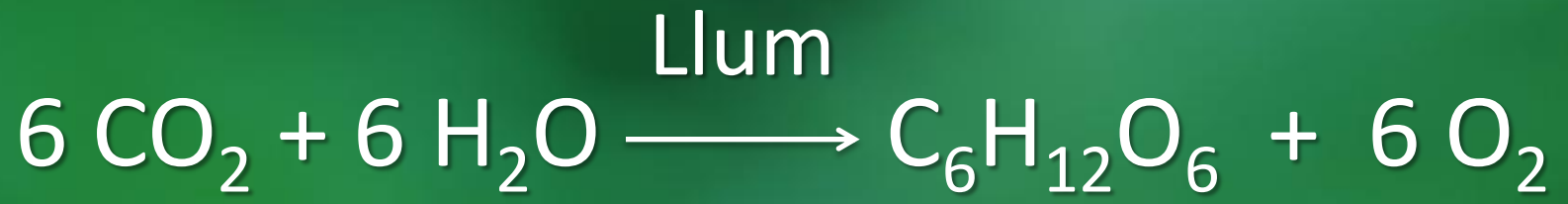


Earth-Sun Relationships and Incoming Solar Energy

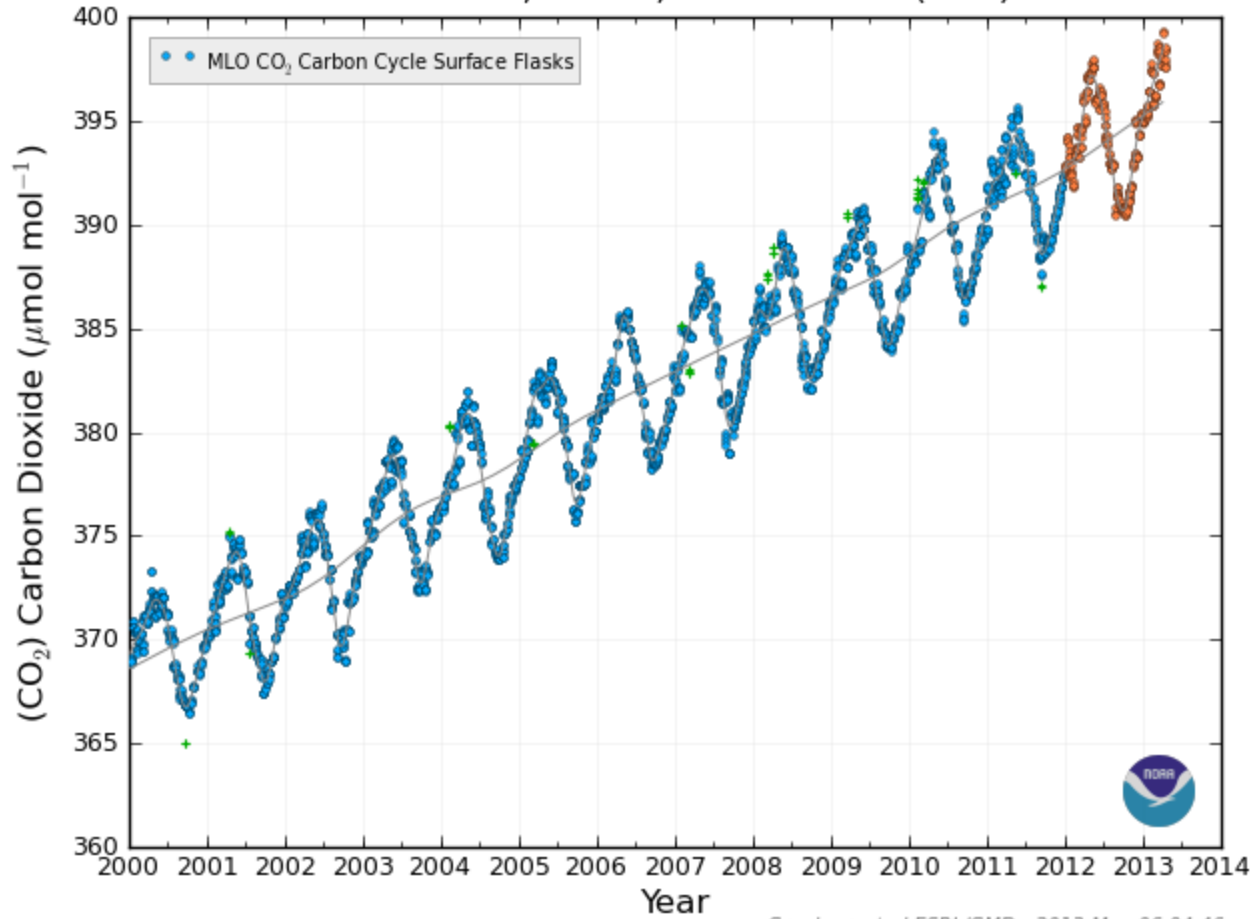








Mauna Loa, Hawaii, United States (MLO)



Graph created ESRL/GMD - 2013-May-06 04:46 am



ウェザーマップ予想 2015

さくら開花前線

1月23日発表

福岡
3 / 22

大阪
3 / 27

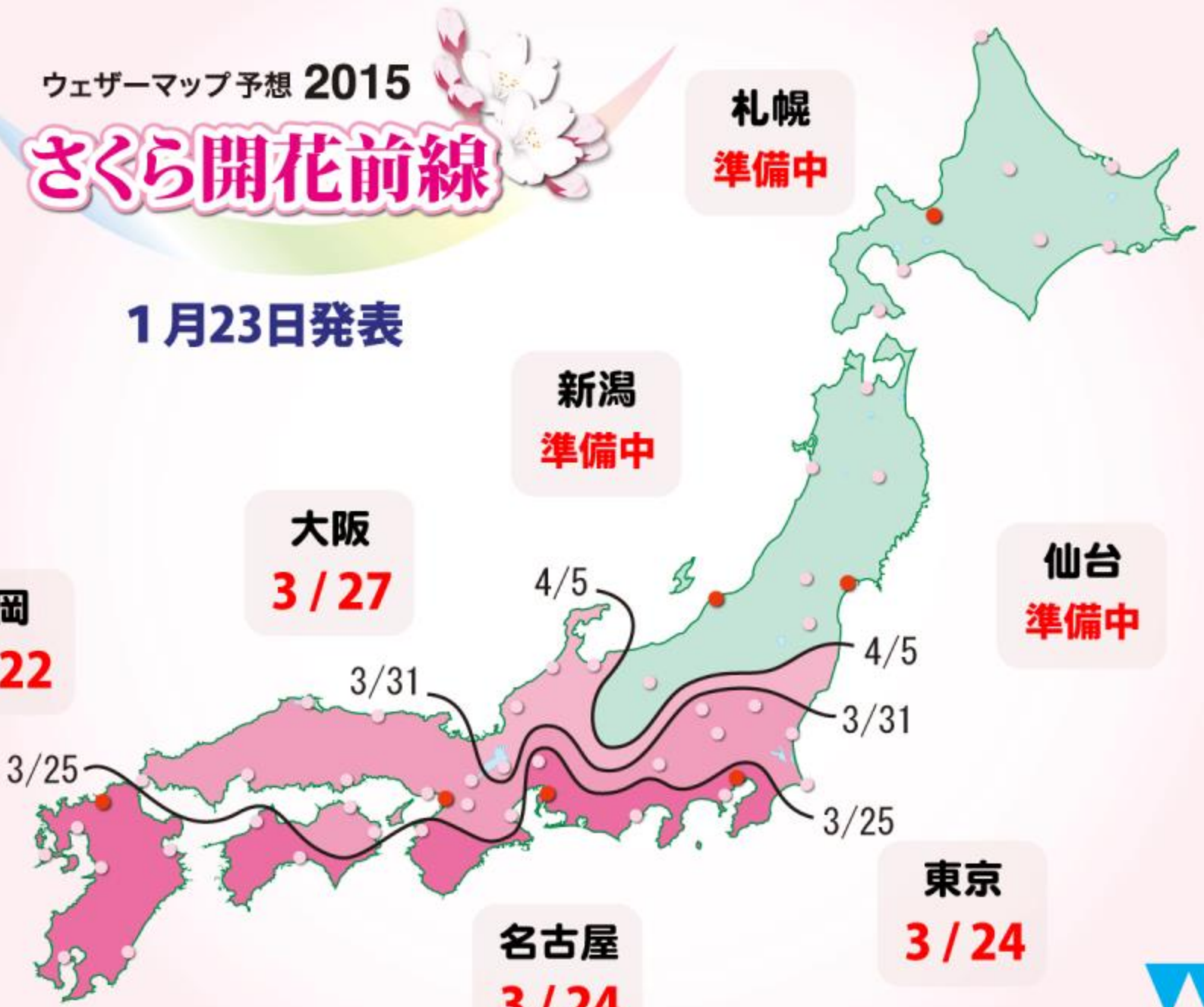
名古屋
3 / 24

東京
3 / 24

新潟
準備中

札幌
準備中

仙台
準備中







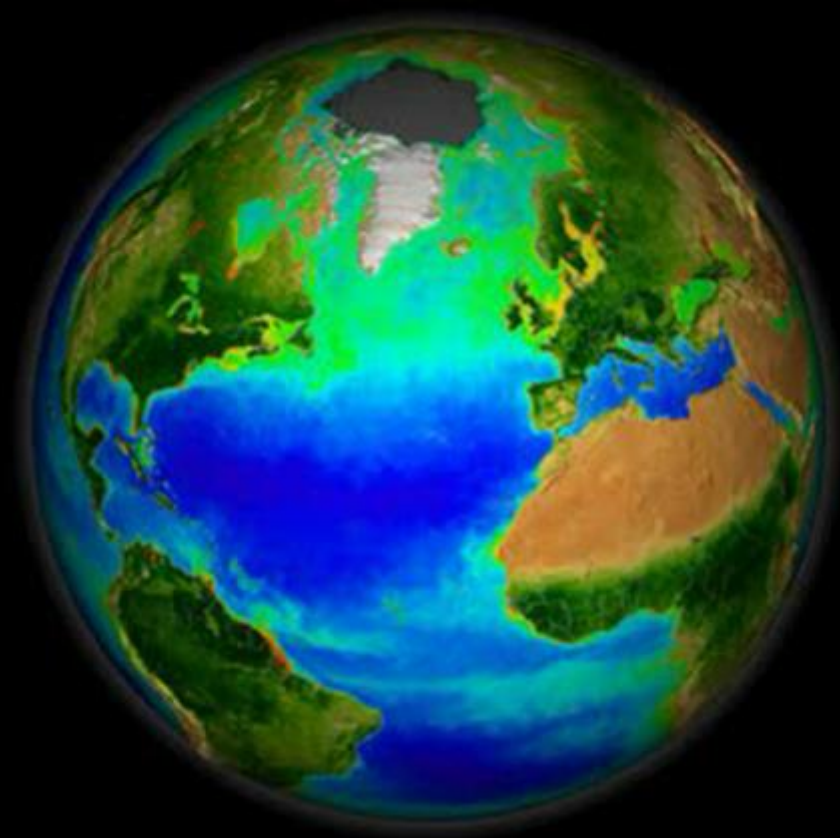


Fotoperíode

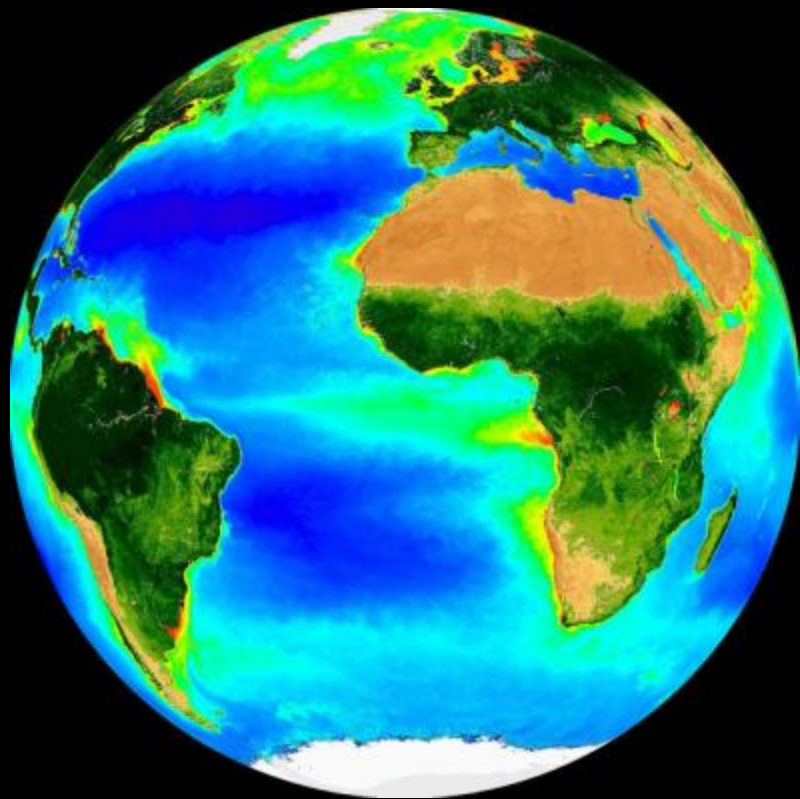
Hipófisi, gònades, tiroides...

Melatonina, prolactina,
somatotropina, catecolamines,
insulina...

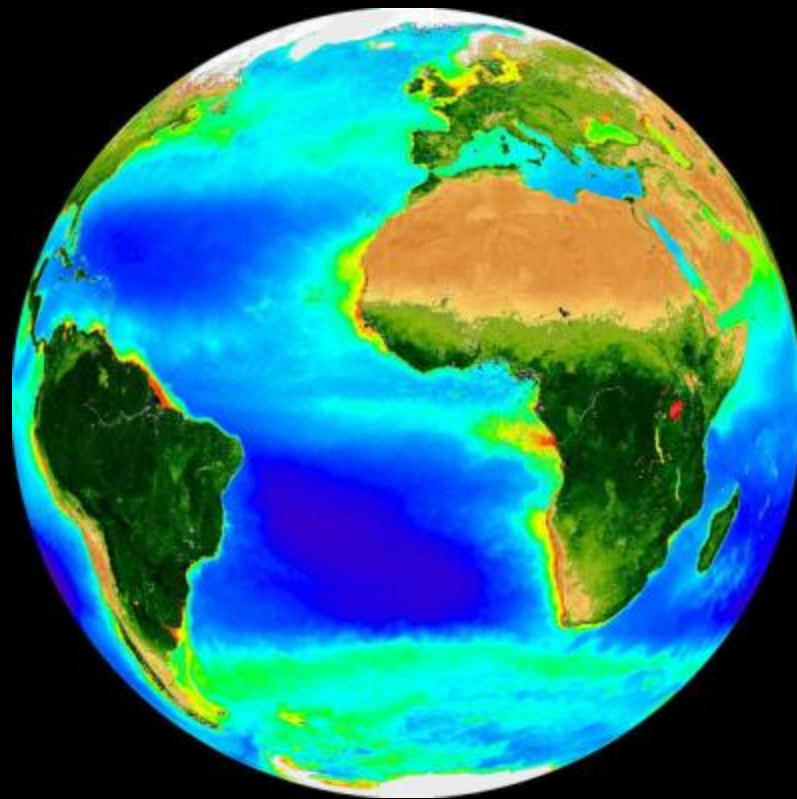




Estiu



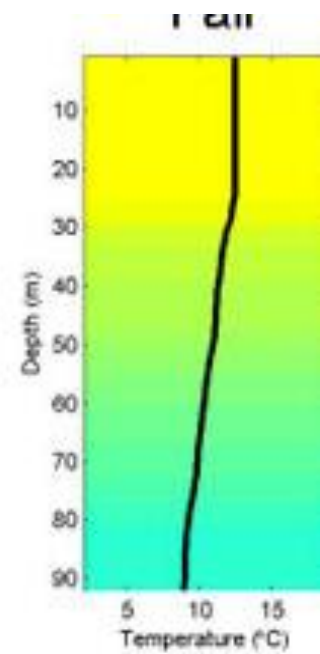
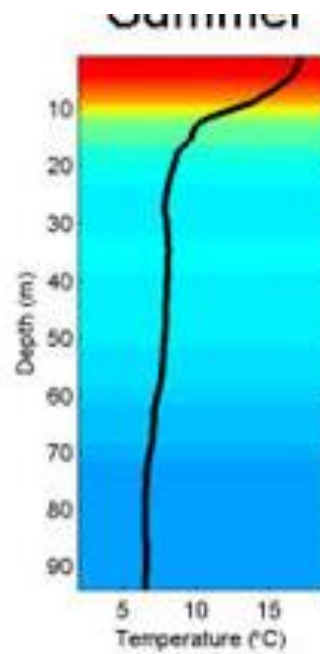
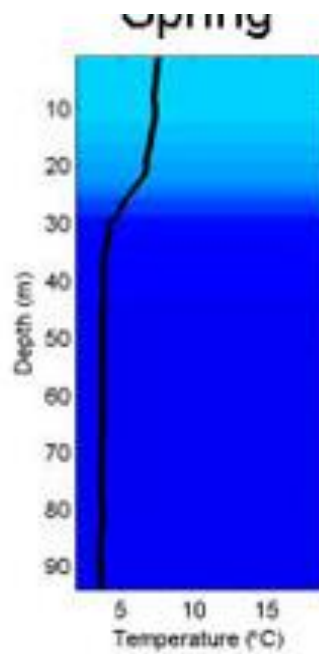
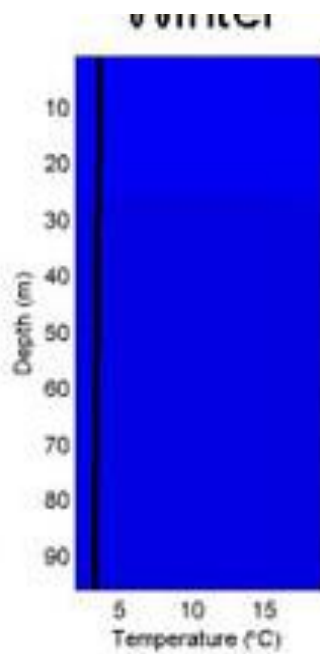
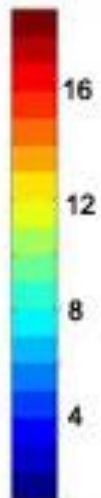
Hivern

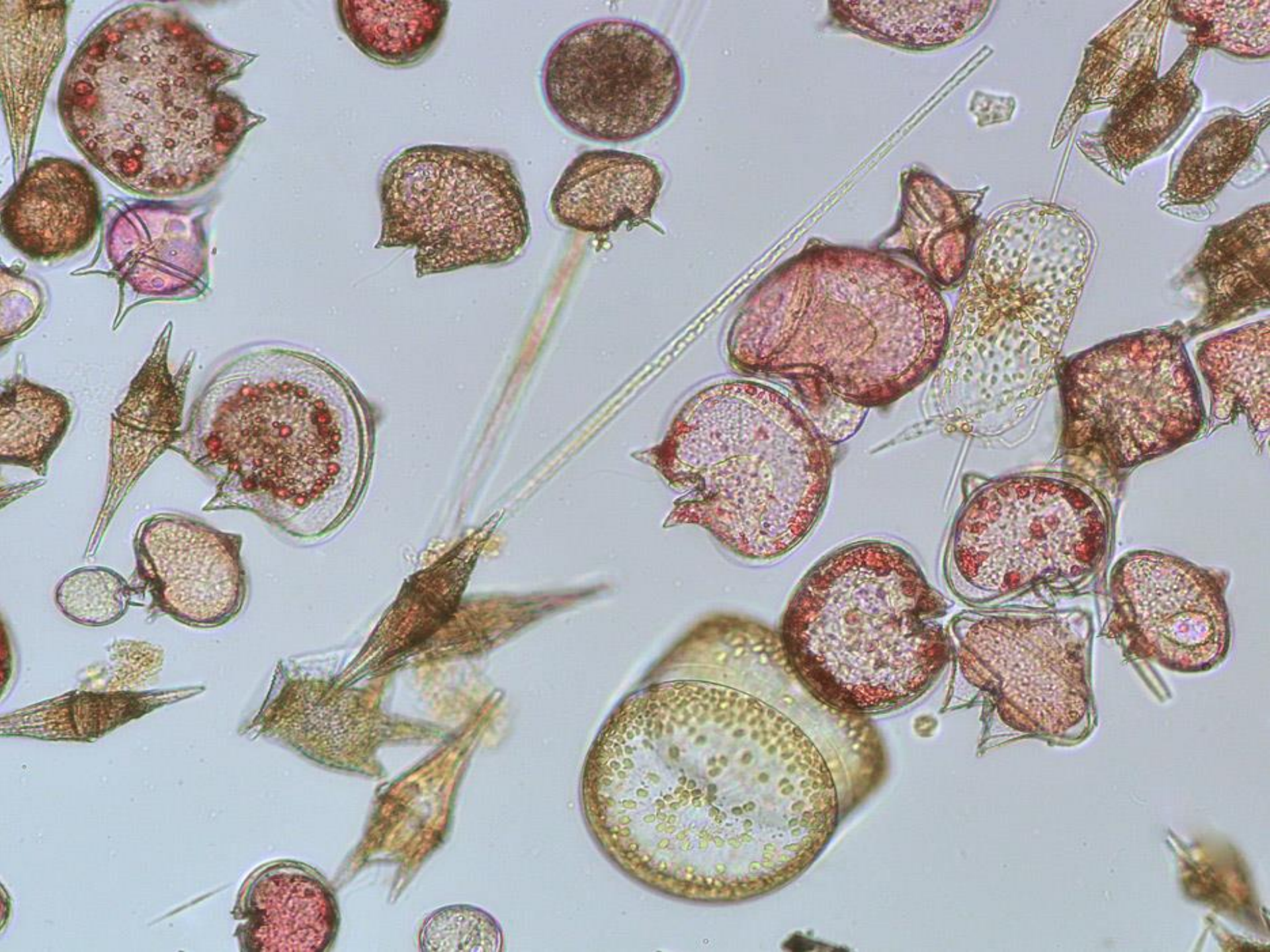


Hivern

Estiu

Temperature
Scale











Berrea (Inici tardor)

Gestació: 235 dies

Parts (Final primavera)



Gestació: 22 mesos



Cangur vermell (*Macropus rufus*)

Zel (Final estació seca)

Gestació: 33 dies

Part (estació humida)



Cangur gris (*Macropus giganteus*)

Zel (sempre)

Gestació: 30 dies

Part (estació humida)

Implantació diferida





266 dies

Humà	266
Ximpanzé	227
Goril·la	257
Orangutan	260







Widespread seasonal gene expression reveals annual differences in human immunity and physiology

[Xaquín Castro Dopico](#), [Marina Evangelou](#), [Ricardo C. Ferreira](#), [Hui Guo](#), [Marcin L. Pekalski](#), [Deborah J. Smyth](#), [Nicholas Cooper](#), [Oliver S. Burren](#), [Anthony J. Fulford](#), [Branwen J. Hennig](#), [Andrew M. Prentice](#), [Anette-G. Ziegler](#), [Ezio Bonifacio](#), [Chris Wallace](#) & [John A. Todd](#)

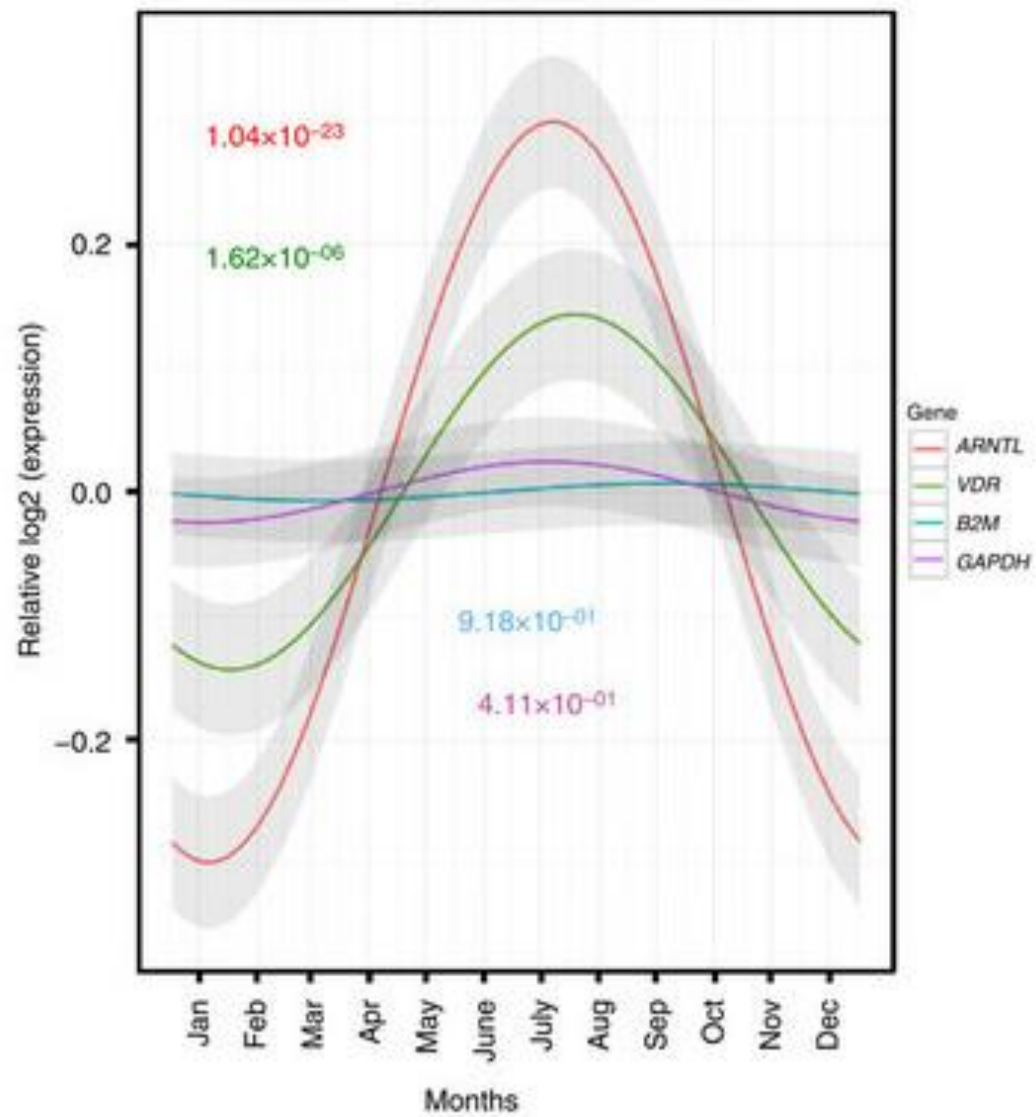
[Affiliations](#) | [Contributions](#) | [Corresponding authors](#)

Nature Communications **6**, Article number: 7000 | doi:10.1038/ncomms8000

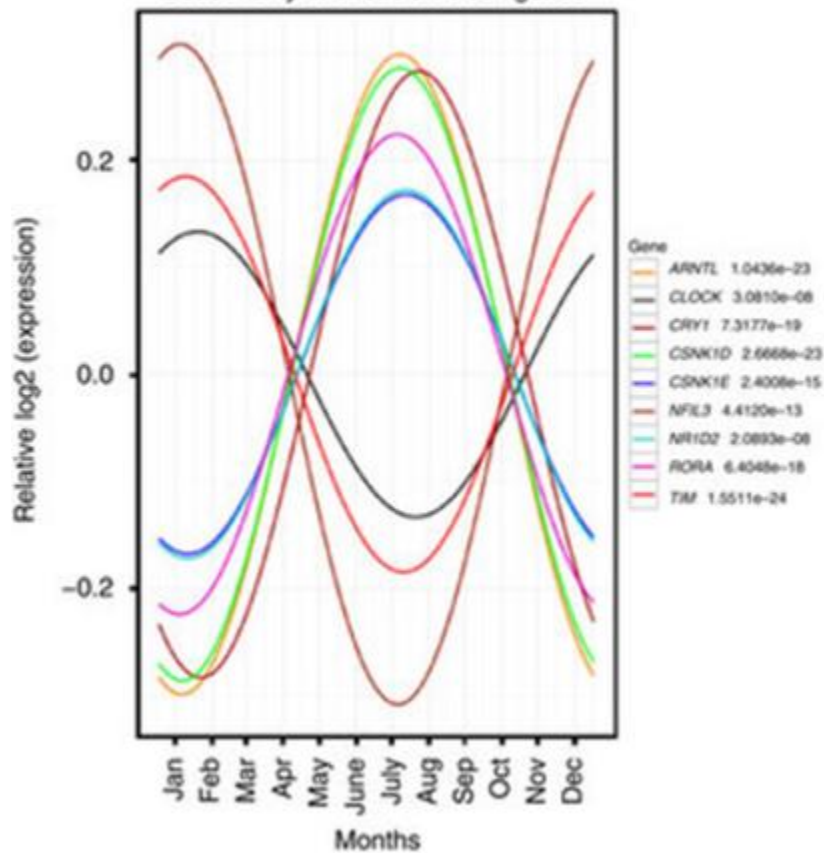
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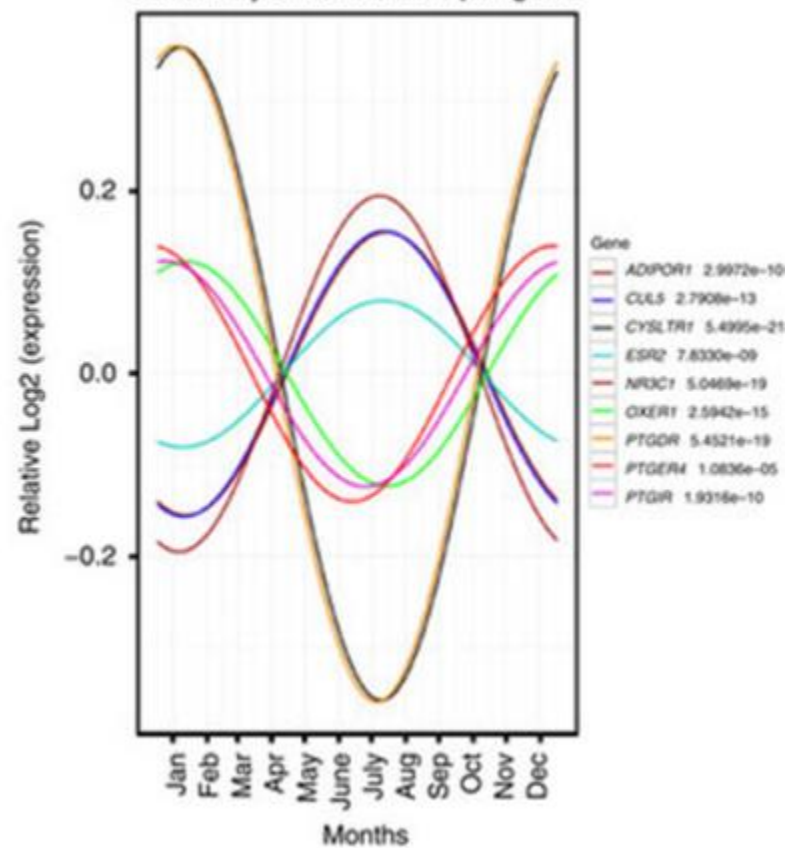
Seasonality of *ARNTL*, *VDR*, *B2M* and *GAPDH* gene expression



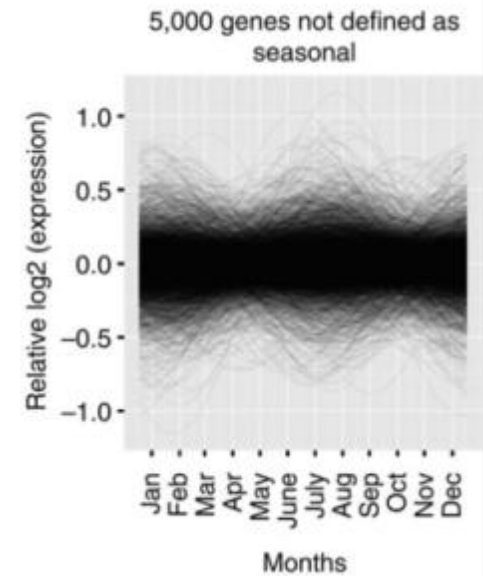
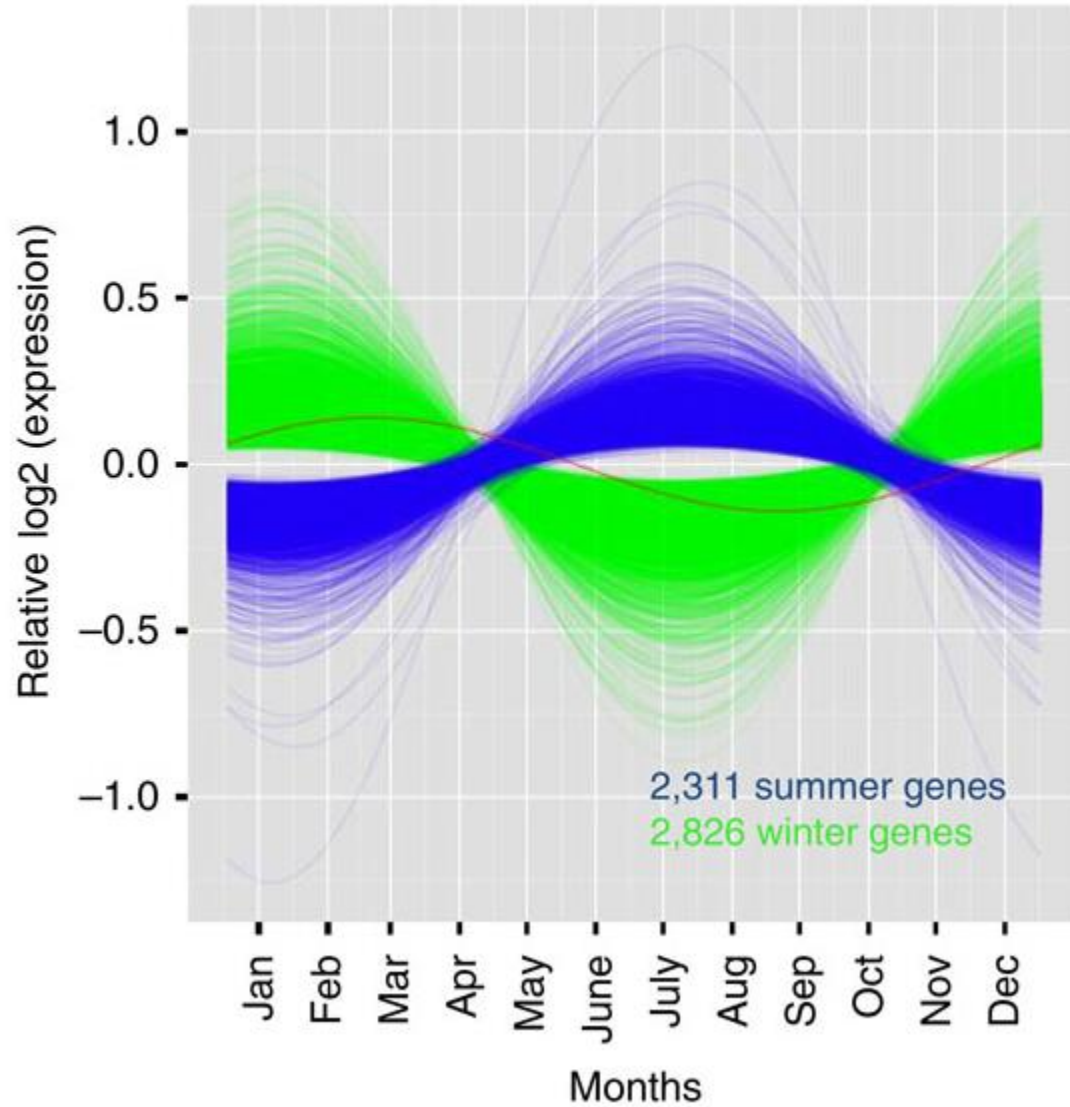
Seasonality of circadian clock genes



Seasonality of hormone receptor genes



Genes defined as **summer**, **winter** or **neither** amongst BABYDIET seasonal genes

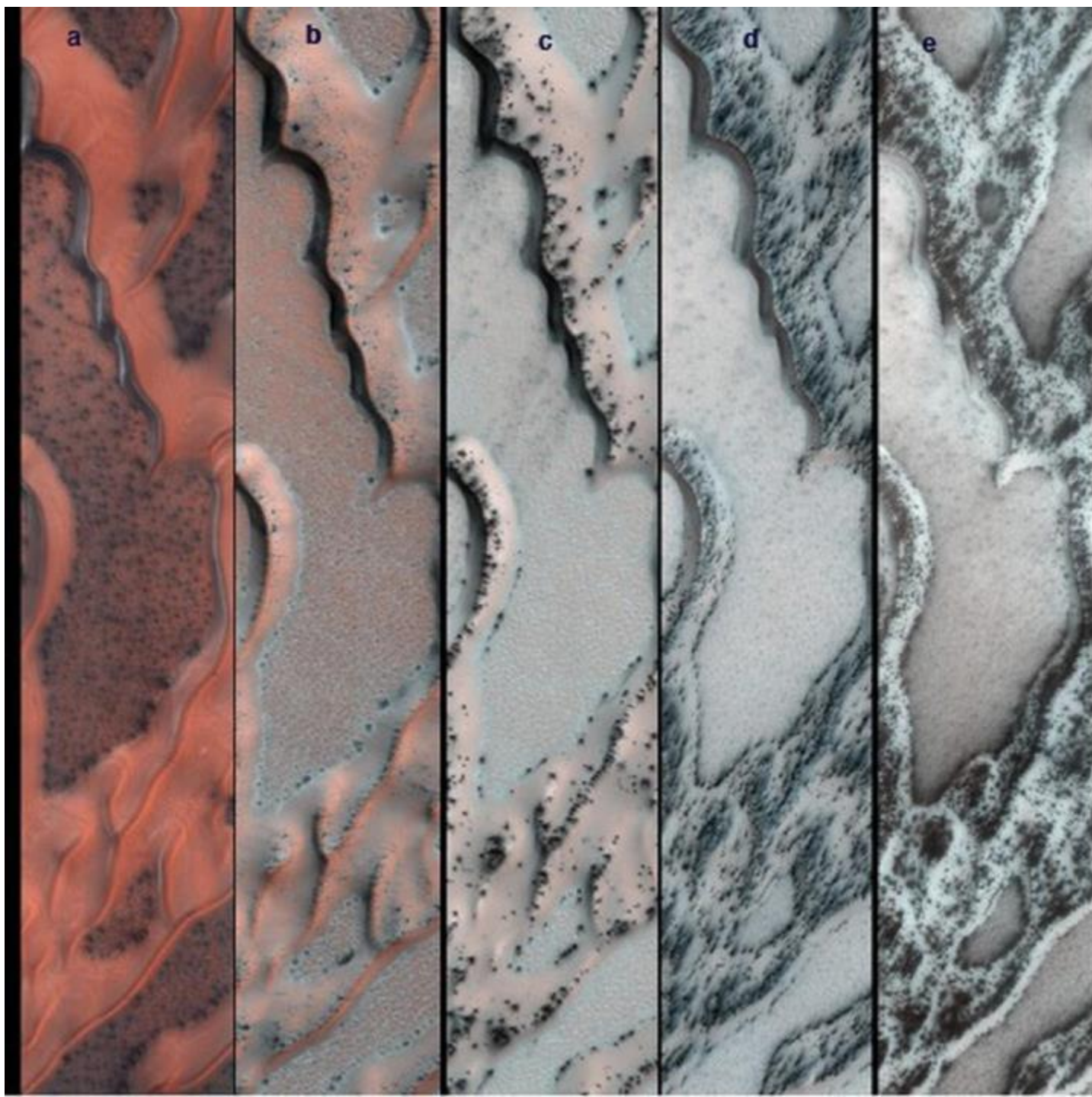




Earth
 23°



Mars
 25°

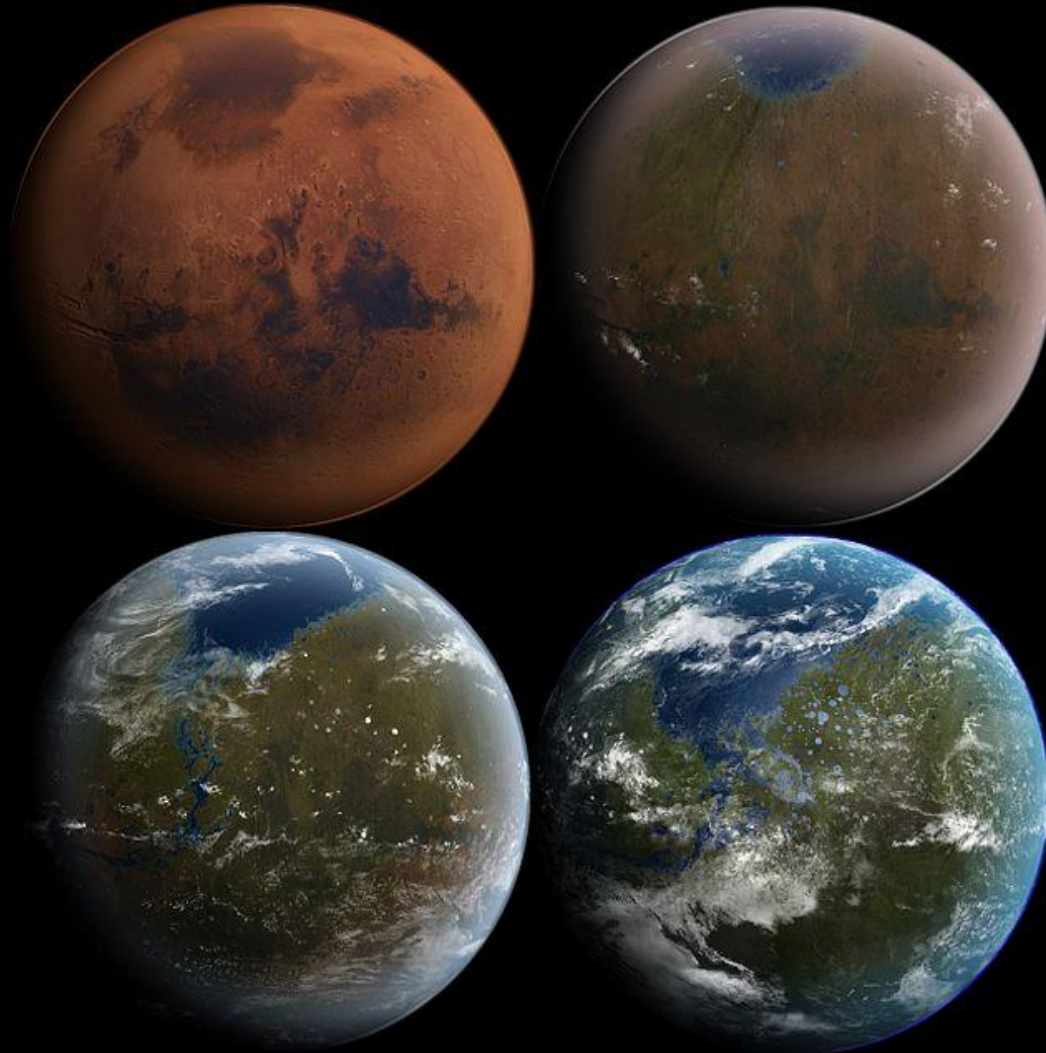


Mart



Estació	Terra	Mart
H.N.	Dies	Sols
Primavera	93	194
Estiu	93	178
Tardor	90	142
Hivern	89	154

Terraformació



Neptú



Primavera 1880

Estiu 1921

Tardor 1962

Hivern 2003

Primavera 2044

